Austria	Sch24	Indonesia	Rp3100	Philippines	Peso40
Bahrain	Din0.750	Iran	Rls230	Portugal	Esc150
Belgium	BFr65	Israel	Shk3.50	Qatar	QR9.50
Cyprus	C£0.95	Italy	L2000	S.Arabia	SR7.00
Denmark	DKr12.00	Jordan	Fils1000	Singapore	S$4.10
Egypt	£E3.25	Kuwait	Fils.600	Spain	Pta165
Finland	FM8.50	Lebanon	L$400.00	Sweden	SKr12
France	FFr7.50	Lux	LFr65	Switz	SFr2.80
Germany	DM2.80	Malaysia	Rlg4.25	Thailand	Bht60
Greece	Dr150	Morocco	Dh8.00	Tunisia	Din0.900
Hong Kong	HK$12	Neth	Fl3.25	Turkey	L1400
Hungary	Ft167	Nigeria	Naira10	UAE	Dh7.00
Iceland	IKr160	Norway	NKr12.00		
India	Rs15	Oman	OR1		

EUROPE'S BUSINESS NEWSPAPER

FINANCIAL TIMES

No.31,103 • THE FINANCIAL TIMES LIMITED 1990

Tuesday March 20 1990

D 8523A

DRUGS WAR

Where the west has failed

Page 4

Soviet Union prepares for a market economy

Radical measures to demolish state control over areas of the Soviet economy, including liberalising prices and introducing some form of rouble convertibility, are planned to be introduced by July 1. Details of the reform package were revealed yesterday, confirming that the Soviet Union will attempt a drastic acceleration of progress towards a market economy. Page 18

Chinese leader quits

Deng Xiaoping, the 85-year-old senior leader of China, will resign as chairman of the state military commission, his last formal post, at China's National People's Congress which opens today. Page 8

Israel condemned

Former US president Jimmy Carter, in Israel on a tour of the Middle East, strongly condemned Israeli human rights violations against Palestinians in the occupied West Bank and Gaza Strip.

Basque attack

Basque separatists claimed responsibility for killing a prison officer in an attack last week which set off strikes and riots at jails throughout Spain.

Gang leader jailed

A court in southern Vietnam has jailed a man for 20 years for running a gang that arranged for about 1,000 boat people to flee the country.

Soviet murder riddle

A wave of 59 unsolved murders of Soviet military officers, ranging from lieutenant to general, is causing grave concern within the High Command.

Democratic Kuwaitis

Kuwait's Crown Prince said that wide consultations with Kuwaitis showed they favoured a return to parliamentary democracy but under rules different from those of the assembly dissolved in 1986.

Iraq sets date

Iraq has told Sweden that Jalil Mehdi al-Neamy, a Swedish national held in Baghdad since last August, will be put on trial late next month.

Fighters for Libya

France has released three Mirage fighter aircraft to Libya, ending a rift between the two countries and renewing its defiance of a 1986 European embargo.

Iceland earthquake

Iceland was hit by an earthquake measuring almost five on the Richter scale which rocked Reykjavik, causing panic but little damage.

Punjab violence

At least 29 people were killed in an upsurge of violence in Punjab during the Sikh militant campaign for an independent homeland.

Sudan food appeal

The World Food Programme has appealed for $11.8m to transport food to more than two million people displaced by civil war in southern Sudan. The UN will start moving 100,000 tons of supplies to the area next month.

Swiss AIDS fund

The Swiss Government said that state funds for AIDS research in the country, which has the highest per capita case rate in Europe, should be doubled in the next two years.

S African summit

Leaders of 12 African nations met for a one-day summit to help speed up *political reforms* in South Africa and to discuss the guerrilla wars in Angola and Mozambique.

Baseball strike ends

The 32-day lockout of America's baseball players by the owners of Major League baseball clubs has ended. Play will start on April 9. Page 18

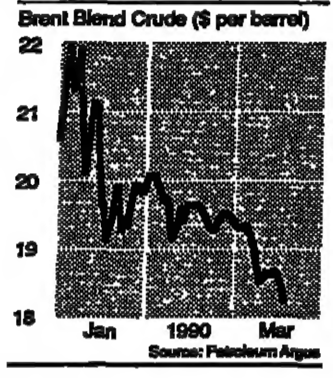
Nikkei falls as investors succumb to uncertainty

THE Tokyo stock market suffered its third-biggest fall as investors succumbed to a new wave of uncertainty about the outlook for the yen and for interest rates.

The Nikkei index dropped 1353.20 points to close at 31,263.24, its lowest level for more than a year. The index has now fallen by almost 20 per cent since hitting an all-time high at the end of 1989. The yen hit a three-year low against the collar in Tokyo of Y153.80. Page 18. Japanese equity warrants, Page 19. Government bond report, Page 25. Markets, back page, section II

OIL Prices fell sharply as markets responded to the meeting of Opec ministers that concluded on Saturday. Traders said the meeting offered no clear indication that current high levels of Opec production, *at roughly 23.7m barrels a day*, would be cut. Commodities, Page 36

Oil price



BRITISH Petroleum expects to save $500m a year in operating costs when the benefits of its programme to reorganise corporate headquarters and change management practices are realised. Page 25. Lex, Page 18

FRANCE'S state army equipment concern GIAT has entered a last minute bid to build the British Army's next tank. Page 11

BRAZIL'S financial and stock markets were virtually paralysed as traders sought urgent guidance on how to implement the country's drastic anti-inflation plan. Page 18

SOVIET Union and US have opened four days of talks aimed at dismantling barriers to bilateral trade and extending a multi-billion dollar pact that governs US grain sales to the Soviet Union. Page 9

YUGOSLAVIA announced a $600m standby arrangement with the IMF aimed at checking inflation and restructuring the country's ailing economy. Page 3

BOC Group, UK-based industrial gases company, is to invest a further $4m to modernise a commercial helium plant at Odolanow in Poland. Page 3

EUROPEAN Community proposes to abolish or reduce barriers to imports of tropical products currently valued at Ecu10.4bn ($12.3bn) a year as part of its contribution to a successful outcome of the Uruguay Round of Gatt. Page 9

SAINSBURY, UK supermarket chain, awarded its 60,000 retail staff pay increases of between 8.5 and 20 per cent in an effort to cut staff turnover. Page 11

UK is to mount a campaign in the EC and the OECD to persuade other industrial countries to curb spending on official export credits. Page 9

TAX row between Sweden and Belgium, involving millions of dollars of "unpaid" Swedish property taxes, looks close to being resolved.Page 4

MINORCO: New York judge has ruled that Minorco's South African links should have no bearing on its ability to do business in the US. Page 20

D-Mark strengthened by rush of confidence

THE D-Mark surged on foreign *exchange markets* yesterday in response to the conservative parties' victory in the East German elections, write Rachel Johnson and Peter Norman in London.

The result was perceived by the markets as an end to uncertainty about the status of East Germany and the D-Mark. The currency was bolstered by the prospect that the centre-right coalition government of Mr Helmut Kohl, the West German Chancellor, would be re-elected in December.

New-found confidence in the ability of Mr Kohl to speed unification and monetary union carried West German equities higher. The 30-share Dax index closed 17.08 points up at 1,906.77, below the day's high of 1,931.08.

Sterling was the main casualty of the D-Mark's strength. It was driven to a record low against the German currency on the eve of today's first annual budget speech by Mr John Major, the UK Chancellor of the Exchequer.

Although Mr Major's instinct is to give priority to solving the economy's problems, financial markets fear his budget will produce vote-catching measures to shore up the Government's declining electoral fortunes, rather than the pound.

Yesterday's turmoil began in Tokyo where the stock market suffered its third biggest fall ever, of 4.15 per cent. The Nikkei index dropped 1,353.20 points to close at 31,263.24, its lowest level for more than a year. Buying of the German currency weakened the yen to a three-year low against the dollar of Y153.5.

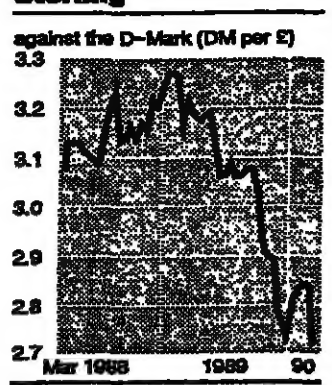
Sterling sank to its lowest-yet Frankfurt fixing of DM 2.72, down from 2.756 on Friday. The previous record fixing low of DM2.721 was reached on December 29, 1989. In London, the pound closed at DM 2.7125, and lost 1.25 cents to close at $1.612.

UK stocks and government bonds weakened. The FT-SE index lost 25.9 points to close at 2238.0.

Analysts said an announcement about Britain's entry to the exchange rate mechanism would help to arrest sterling's slide and that a tight Budget outlining tax increases, savings incentives, or a resolution of the Government's funding policy would help the markets to regain confidence in the pound.

Tokyo market fall and Lex, Page 18; World Stock Markets, Back Page, Section II.

Sterling



Attempts at East German coalition spurned by SPD

By David Goodhart, David Marsh and Leslie Colitt in East Berlin and Andrew Fisher in Bonn

ATTEMPTS TO form East Germany's first democratic government ran into immediate trouble yesterday when an *offer by the victorious* centre-right Alliance for Germany of a coalition with the humiliated Social Democrats was turned down.

Political uncertainty was accompanied, however, by raised expectations of swift economic union. Mr Lothar de Maiziere, the Prime Minister-designate who leads the Christian Democrats, the largest party in the Alliance, said he supported rapid monetary union. He told a press conference the rest of the Berlin Wall would come down "as quickly as possible."

The Alliance, which won 48 per cent of the vote, offered coalition to the liberal Free Democratic Alliance, which won 5 per cent, and the Social Democrats with 22 per cent. The SPD, however, said it would not join a government which included the smaller right-wing party, the German Social Union, a member of the Alliance, which won 6 per cent.

If the SPD sticks to this refusal it might be difficult for a new government to gather the two-thirds of Volkskammer (parliamentary) votes required to dissolve the East German constitution and merge with West Germany.

Mr Konrad Elmer, an SPD executive member, said his party was not merely staking out a negotiating position. "I think we will be working in the opposition."

The SPD might be hoping to avoid association with some of the unpopular decisions a short-lived East German government will have to take. On the other hand as it supports the principle of unity it will have to back the Government on some issues, and might suffer from association with the second largest opposition group the PDS (the former Communists).

Mr Elmer accepted there was a danger of too close an association with the PDS in opposition but said: "We will just have to work hard at getting our different message across."

The PDS, which won 16 per cent of the vote, seems in any case to be making overtures to the small Bundnis 90, a grouping of the original East German opposition groups, which took 3 per cent of the vote.

Christian Democrat leader Lothar de Maizaire (left) and Democtratic Awakening Party leader Rainer Eppelmann after their victory yesterday

The Alliance also said yesterday that it intended to appoint Mr Elmar Pieroth, a leading West German politician, as its Economics Minister. Mr Pieroth is a former Christian Democrat Economics Minister in West Berlin.

Leading West German politicians vied with each other yesterday in the wake of the elections to insist that the impending unification of the two countries was a European and just a national affair.

Putting the future of a unified Germany in the European perspective, Mr Helmut Kohl, West German Chancellor, said a future Germany could not be non-aligned. "It would not be in Europe's interest if a united Germany were left to its own devices as far as its security is concerned. That would not lead to more stability in Europe, rather it would carry the seed of a new instability."

Thus the future united Germany should stay in the Western alliance. "For this, it would be necessary to negotiate a transitional military arrangement for the present territory of East Germany."

Also emphasising the European dimension was Mr Oskar Lafontaine, who confirmed he would stand as the opposition Social Democrat in December's federal election. But he said the present alliances should be superseded. "In security matters we will strive for an understanding with our European neighbours in East and West, as well as with the USA, the USSR, and Canada. The

Continued on Page 18

Background, Pages 2, 3; Editorial comment, Page 16; A vote for Anschluss, Page 17; Moscow plans *for* market economy, Page 18

Delight is tempered by concern on unification

By Our Foreign Staff

WESTERN delight at the rebirth of democracy in East Germany was tempered yesterday by concern over the implications of hasty unification and the question of a united Germany's place in Nato.

In Moscow, the Soviet Union grudgingly accepted the election outcome but insisted that the new government respect both obligations and Soviet interests. "We accept the choice," said Mr Gennady Gerasimov, the Soviet Foreign Ministry spokesman.

Expressing concern that there might now be a rush to unification, he said: "Make haste slowly... This is our motto. Of course we are concerned, because we believe it is a process which must go step by step and not happen overnight. We want to synchronise the process with the European integration process."

Avoiding any overt insistence on the neutrality of a united Germany, he said its "military-political status" should be combined with the new European structures of security.

Its military potential should be "in keeping with the principle of reasonable sufficiency," and measures for its demilitarisation should apply to both parts of the country.

Mr *Gerasimov* said the Soviet Union might have lost an ally "if you approach the situation in confrontational terms. If you look at it from the point of view of building a common European home, then you have new neighbours, and you respect their interests. It is not a disaster. It is just a process."

However, he sharply critic-

Continued on Page 18

US group of companies to buy key division of Perkin-Elmer

By Louise Kehoe in San Francisco

Six big US companies have *formed* a team *to* acquire the Electron Beam Technology division of Perkin-Elmer, along with current and former managers, in a move intended to keep technology within the US.

International Business Machines, Grumman, DuPont, Micron Technology and Zitel will join Perkin-Elmer as equity partners in the newly formed ETEC Corporation, which will manufacture Electron Beam lithography equipment used in the manufacture of semiconductor chips.

Last year Perkin-Elmer announced plans to divest its semiconductor production equipment operations, raising fears within the US semiconductor industry and in Washington that its advanced semiconductor production equipment technology might come under foreign control. Perkin-Elmer had been reported to be involved in discussions with a number of major Japanese electronics companies.

Yesterday, the participants in the formation of ETEC stressed the importance of retaining US ownership of the company. "We consider ETEC to be in direct support of the national interest to strengthen critical technologies and improve US competitiveness," said Charles Minihan, chairman of ETEC, and a former Perkin-Elmer executive. "This is a prime example of US industry co-operation and teamwork."

"This partnership will ensure that technology vital to the US photomask business remains in the US," said Jerry Henry, group vice president in charge of Du Pont Electronics.

As a pioneer in the development and use of Electron Beam lithography, IBM is contributing its own E-beam technology to the new company as well as making a financial investment. "We will license technology required to help ETEC become a leadership company in Electron Beam technology," said Mr Jack Kuehler, IBM president. IBM has used E-beam equipment to make the photomasks used in chip production.

E-beam is expected to become a vital element of chip production technology in the future as chip density increases to cram more and more circuits onto a single chip of silicon.

The former and current Perkin-Elmer managers who have formed ETEC will own a significant share in the company.

London equity market reform proposals meet fierce criticism

By Richard Waters in London

LONDON'S International Stock Exchange yesterday published details of reform proposals but its chairman, Mr Andrew Hugh Smith, said securities houses were likely to oppose some of them strongly.

The proposals, which were laid before the exchange's ruling council yesterday but not voted on, seek to overhaul the exchange's domestic equity *market and are designed to* refine the market system introduced in 1986.

Further erosion of profits, in an industry already suffering from overcapacity, is likely to result from some of them.

Mr Hugh Smith, in a letter to member firms outlining the competitive impact of two key suggested changes, pointedly failed to give the council's view of them. By contrast, other recommendations in the paper prompted "a preliminary favourable view."

Mr Hugh Smith said opposition had been voiced to some of the proposals during the council meeting.

Mr Nigel Elwes, finance director of Warburg Securities and chairman of the committee which drew up the proposals, said the reforms were not radical but involved "fine tuning and adjusting."

However, some aspects have already drawn strong reactions from securities houses. They are concerned about two proposals designed to make the *stock market more attractive for individual shareholders.*

Mr Elwes said retail investors have had "a raw deal out of the market" and the changes would help to reverse this.

This was denied by Mr Hugh Smith, who said individual investors had suffered higher costs since the 1986 reforms only because they were no longer being subsidised by institutional investors.

The most controversial change would involve the creation of an automated second-tier market for small deals, in which the market maker quoting the keenest price in a particular share would always win clients' business, even if others in the market were prepared to match the price themselves.

Securities houses fear that this would lead to fiercer price competition and that it would establish a precedent that could eventually be applied to larger, more profitable transactions as well.

The second proposal likely to prompt opposition is the plan *for an order-driven market, to* be known as Close, said Mr Hugh Smith.

This would involve matching buyers and sellers, rather than business passing through market makers, and has been attacked by market makers who fear that it would undermine the existing quote-driven market system.

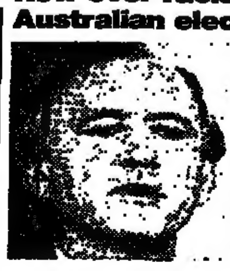
The two changes could not be brought in for at least 18 months, because of the need to upgrade the exchange's electronic services.

Other proposals in the report, which has been released for consultation until

Continued on Page 18

CONTENTS

Row over racism stirs up dull Australian election campaign



The issue of Asian immigration has suddenly electrified an otherwise dull Australian election campaign. Main opposition leader, Andrew Peacock (left), has been accused of playing the "Japan card". Page 8

MARKETS

STERLING
New York lunchtime:
$1.6112
London:
$1.612 (1.6245)
DM2.715 (2.7525)
FFr9.1725 (9.3)
SFr2.4325 (2.45)
Y247.5 (247.5)
£ Index 85.9 (86.6)

GOLD
New York: Comex Apr
$402.6
London:
$402.75 (400.625)

N SEA OIL (Argus)
Brent 15-day
$18.225 (18.625)

Chief price changes yesterday: Page 19

DOLLAR
New York lunchtime:
DM1.68275
FFr5.6925
SFr1.507
Y153.1
London:
DM1.683 (1.6945)
FFr5.69 (5.7250)
SFr1.5085 (1.5060)
Y153.5 (152.30)
$ Index 68.2 (same)
Tokyo close: 153.55

US Lunchtime Rates
Fed Funds $8\frac{1}{4}$%
3-mo Treasury Bills:
yield: 8.153%
Long Bond:
$99\frac{3}{32}$
yield: 8.56%

STOCK INDICES
FT-SE 100:
2,238.0 (-25.9)
FT Ordinary:
1,759.9 (-29.5)
FT-A All-Share:
1,111.57 (-1.1%)
New York lunchtime:
DJ Ind. Av.
2,721.85 (-19.37)
S&P Comp
340.12 (-1.79)
Tokyo: Nikkei
31,263.24 (-1,353.3)

LONDON MONEY
3-month interbank:
closing $15\frac{3}{32}$ (15)
Liffe long gilt future:
June $83\frac{1}{32}$ $(83\frac{1}{16})$

GERMANY

East votes to become Bonn's biggest depressed region

By David Goodhart in East Berlin

THE East German's preference for the "quick fix" approach to unity will speed up a process already under way. But what will it mean for the economy, the political scene, the city of Berlin and the Soviet troops stationed in East Germany?

● The economy: The East Germans have voted to transform their country into West Germany's largest depressed region.

Currency union is now likely in a matter of weeks rather than months. The new East German parliament will quickly sweep away the few remaining legal obstacles to an open capitalist economy, and repeal the recent trade union law. The tricky legal and social problem of West Germans' claims on their former property in East Germany will have to be faced.

A new and better social security system – paid partly by West Germany and partly by worker contribution – will be established. The polluting brown coal-dependent energy economy will be closed down quicker than envisaged and within two years East Germany will be receiving a high proportion of its electricity from West Germany.

● Politics and elections: In spite of the wide consensus for unity there will be bitter political disagreements about how to shape it. A lot of institutions which have remained largely unchanged during the period between the collapse of the old regime and the election will now see key personnel changes. Communal elections are planned for May.

The five former states of East Germany will be legally re-established and länder elections will take place in August or September. Mr Richard von Weizsäcker, West German president, may also be elected president of East Germany by the East Berlin parliament.

● Berlin: A leading East Berlin city planner has predicted a metropolis of 6m to 8m within five years. The current population of East and West Berlin is about 3.5m. The politics and infrastructure of the two sides are already growing together. There are even plans for a common police force and common schools.

The rights of the four powers – US, USSR, UK and France – will gradually be negotiated away. Already the Soviets have indicated that they will accept East Berlin's democratic constitution of 1948 which is not significantly different from West Berlin's. However Berlin will not be allowed to, and will not want to, run too far ahead of the process in the rest of Germany.

● Troops: The 380,000 Soviet troops face an uncertain future. Although a large reduction is inevitable, timing is vague. The future of the East German Volksarmie is also unclear. There could be a war of nerves between the Soviet Union and West Germany for legal control over various key installations on East German soil.

Last-minute rush of 'don't knows' to the CDU shocks pollsters

By David Goodhart

POLLSTERS are not meant to be surprised by election results but Mr Wolfgang Hartenstein, head of the West German Infas polling organisation, was as shocked as anyone by Sunday's early evening Infas exit poll which accurately foreshadowed the final result.

Infas's pre-election polls had been predicting a narrow Social Democrat victory. How then does Mr Hartenstein explain the upset?

"The key was this extraordinary 40 per cent of 'don't knows' who all went in a rush to the CDU in the final few days," he says.

He rejects the view that much of the undecided 40 per cent had in fact decided for the CDU but preferred not to tell pollsters, thinking it was a less respectable answer than SPD.

However he believes that the psychological appeal, particularly to the 4m Saxons, of Chancellor Helmut Kohl as father figure may have been underestimated. "They have not had a leader figure to identify with for so long, and they did not want to elect someone who would argue with the father figure," he says.

He adds that the difficulty for the SPD was that it had two messages: unity but with some respect for East German tradition; whereas the CDU had one: simply unity.

ELECTION RESULTS

Party	% of vote	Seats in parliament
CDU	40.9	164
German Social Union	6.3	25
Democratic Awakening	0.9	4
Alliance for Germany (total)	48.1	193
SPD	21.8	87
PDS (former Communists)	16.3	65
Free Democratic Alliance	5.3	21
Others	8.5	34

Notes: Electoral turnout 93.2%. Volkskammer (parliament) has 400 seats

He claims that the real cleavage line in the election was between, on the one hand, the PDS (former Communists) and Bundnis 90 (the small groups who originally overthrew the old Communists), and, on the other, the copies of the West German parties.

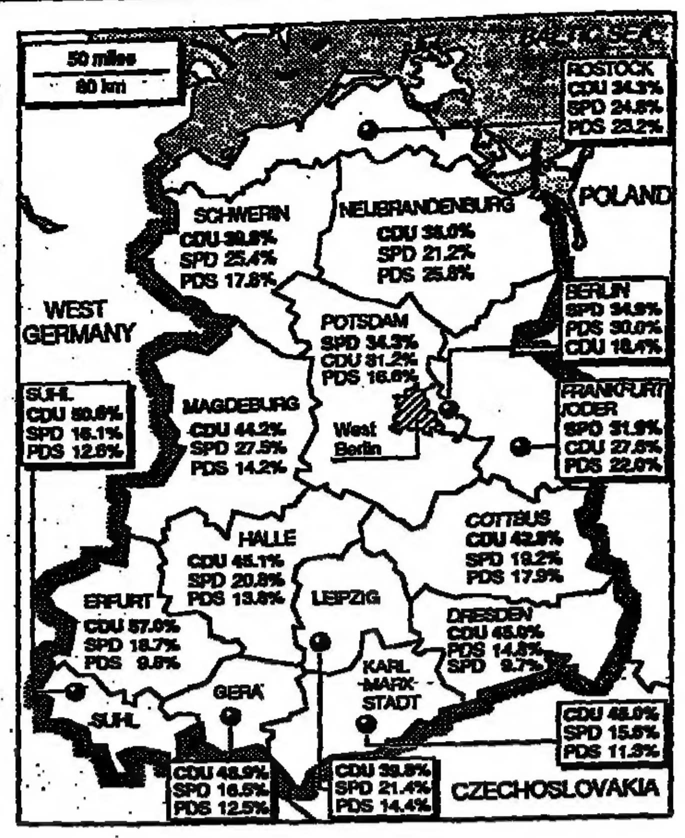
The PDS and Bundnis 90 appealed most to the 35 per cent of East Germans who call themselves East Germans first; the CDU to the 50 per cent who say they are Germans first. The SPD tried to appeal to both and failed.

SPD optimists are hoping this has been a practical vote – voting in the most emphatic way possible for unity now but with a view to switching to the SPD in all-German elections. A more realistic consolation is that in all-German elections most PDS voters should switch to the SPD.

Mr Hartenstein says it was above all industrial workers in the south, who believe they have most to win from unity, who gave the CDU their victory. The intellectuals and functionaries, who have most to lose, stuck to the PDS, and the SPD was squeezed.

There was a marked regional split. With the broad centre-right vote falling below 40 per cent in the two northern states of Brandenburg and Mecklenburg, but touching 60 per cent in three southern states.

Mr Hartenstein, himself an SPD sympathiser, concludes: "The countryside was quite mixed but the small towns and the industrial centres of the south carried all before them. They wanted Mr Kohl and his petit-bourgeois certainties."



Result pleases east's big industrial groups

By Leslie Colitt in East Berlin and Katharine Campbell in Frankfurt

THE election victory for the Christian Democratic party was heartily welcomed yesterday both by West German industry and by an unexpected source: East Germany's giant state-owned industrial groups, the *Kombinate*.

Mr Werner Schulze, deputy director of sales for Robotron, East Germany's largest electronics group, was evidently satisfied with the CDU's success. "We believe this is the most favourable result the *Kombinate* could have hoped for," he said.

Mr Schulze said a rapid economic and currency union between East and West Germany was now imperative.

"What would you prefer? A long, agonising death, or a quick end? I would prefer the latter," he asked, referring to the inevitable closure of many East German factories which will be rendered uncompetitive by the introduction of the D-Mark. He admitted that much of Robotron's own production would be rendered "worthless."

Only last week, at the Leipzig Fair, Robotron introduced a new AT personal computer which would have to sell for 37,000 East German Marks to cover production costs and make a modest 12 per cent profit. A similar computer in the West costs DM2,000 and means that Robotron's production will have to be cancelled, with all the consequences.

Robotron's 68,000 employees will bear the brunt of the move to a market-oriented economy, Mr Schulze indicated. Only 2,000 of them were producing colour televisions, electric typewriters and printers which could be sold profitably under D-Mark conditions. The others would soon find themselves out of work. Robotron's sales organisation, employing 9,000 people, was also vastly "bloated", he said.

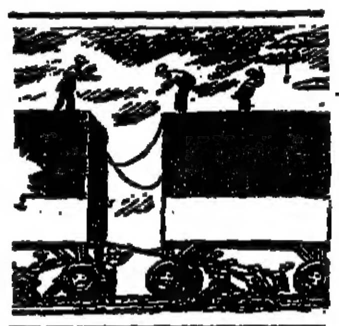
Mr Schulze stressed that a CDU-led Government would provide the necessary political stability to allow medium and small-scale industry and services to develop and eventually employ the workers dismissed at Robotron. But it would be a race against time.

Even workers getting East German wages in D-Marks will be faced with western prices in the shops as well as rising rents for their flats. Under such conditions, many may prefer taking their chances "200 metres down the street" in the West, he said, nodding in the direction of West Berlin.

In West Germany, industry and commerce called for the speedy formation of a new government in the east to usher in the social market economy.

"The East German people have given a clear mandate that they want to take on our system, lock stock and barrel," said Mr Dieter Wermuth, chief economist at the Frankfurt offices of Manufacturers Hanover, the US commercial bank. "They have said: 'Transform us into a copy of your economy,' thereby giving up any separate economic identity."

Industry leaders, who confessed to being taken aback at the extent of the conservatives' victory, urged the new Government to reverse the damage



ROAD TO UNITY

caused by months of political limbo since November and to create an environment in which the long list of proposed east-west deals could be set in motion.

"Inadequate provisions, such as the joint-venture law, must be rectified, and counterproductive laws, such as the trade unions law, must be abolished," according to Mr Tyll Necker, president of the Federation of German Industry.

Mr Wolfgang Röller, president of the Federation of German Banks, stressed the necessity of creating a two-tier banking system modelled on West German lines as a prerequisite to the development of the economy at large.

Industrialists are hopeful that the election results virtually assure the adoption of the D-Mark in the east by July. They favour an early announcement of the terms of monetary union, seen as the single most important factor in stemming the flow of East German citizens to the West.

East Berliners decide to keep their city socialist

BUCKING A national trend, East Berliners voted overwhelmingly for the left in the election, raising the prospect of a reunited "red Berlin" as capital of a unified Germany, Reuter reports.

The city has a long socialist tradition and was one of the last places to resist Hitler's Nazi party in the early 1930s.

West Berlin is already ruled by a left-wing coalition of Social Democrats (SPD) and the radical Alternative List.

The East German SPD, nationwide losers, chalked up their best score in East Berlin with 35 per cent, well above their average of 21.8 per cent.

The Communist party, hastily revamped as the Party of Democratic Socialism, won 30 per cent in East Berlin, nearly double its national score of 16.3 per cent. Commentators said the score reflected the high proportion of Communists in the civil service, the security forces and working-class bastions in the capital.

The left-liberal Alliance 90, a coalition of citizens' movements led by intellectuals who played a decisive role in last year's democratic revolution, scored 6.4 per cent in East Berlin, more than twice its national average.

Politicians on both sides of the Berlin Wall have proposed forming a joint council for greater Berlin.

Supporters of Bonn, the "federal village" that has been West Germany's makeshift capital since 1949, are fighting a rearguard action against Berlin becoming the capital of a united Germany.

But most political commentators believe the centre of political power will gradually move to Berlin.

FINANCIAL TIMES

Published by the Financial Times (Europe) Ltd., Frankfurt Branch, (Guiollettstrasse 54, 6000 Frankfurt-am-Main 1; Telephone 069-75980; Fax 069-722677; Telex 416193 represented by E. Hugo, Frankfurt/Main, and, as members of the Board of Directors, R.A.F. McClean, G.T.S. Damer, A.C. Miller, D.E.P. Palmer, London. Printer: Frankfurter Societaets-Druckerei-GmbH, Frankfurt/Main. Responsible editor: Sir Geoffrey Owen, Financial Times, Number One Southwark Bridge, London SE1 9HL.

FINANCIAL TIMES, USPS No 190640, published daily except Sundays and holidays. US subscription rates $365.00 per annum. Second-class postage and at New York NY and at additional mailing offices. POSTMASTER, send address change to: FINANCIAL TIMES, 14 East 60th Street, New York, NY 10022.

Financial Times (Scandinavia), Ostergade 44, DK-1100 Copenhagen-K, Denmark. Telephone (33) 13 44 41. Fax (33) 935335.

GERMANY

Market response mixed to conservatives' poll success

By Katharine Campbell in Frankfurt

WEST Germany's financial markets yesterday betrayed mixed emotions about the strong showing of the conservative alliance in Sunday's East German elections.

The stock market climbed sharply, interpreting the election result as heralding a speedier passage to a functioning social market economy, with all the concomitant benefits for German companies poised to expand into the East.

However, the bond market again focused on the negative implications of economic unity and weakened through the day. Bond investors are nervous because of uncertainties over the costs of East German reconstruction, and concerned about the inflationary effects of monetary union, details of which remain unclear.

In Frankfurt, equity prices rose sharply initially, with the Dax real time index reaching a high for the day of 1,931.08, up 41.39 points or 2.2 per cent from the end of last week. Dealers said some investors who had sold on Friday ahead of the elections came back into the market yesterday. Particular beneficiaries were stocks seen as benefiting most rapidly from infrastructure developments – Deutsche Bank, Siemens and Volkswagen.

A degree of profit-taking, however, meant that the market fell off in the last hour of official trading, to close at 1,906.77, up 17.06 points on the day. The sharp overnight fall on the Japanese stock market acted as a particular dampener on initial high spirits. Turnover was well below the record levels seen last month, dealers said.

Meanwhile, average yields on public sector bonds rose 5 basis points to 8.96 per cent, as the government bond futures June contract in London, which led price movements in an otherwise thin cash market, closed at 81.77, down from 82.94. In spite of the negative tone, Frankfurt bankers are not reckoning with a Bundesbank interest rate increase in the near term. That would only be an additional irritation and compound the difficulties of adapting the two economies to forthcoming currency union, one official said.

The D-Mark took on a firmer tone across the board; dealers said trading had picked up momentum after the opening in New York, as news of the elections had sunk in.

Mr Hans Tietmeyer, a Bundesbank director, gave encouragement to the foreign exchange markets with his forecast that currency union would bring not a weaker, but a stronger D-Mark. Towards the end of the afternoon, the D-Mark was quoted at DM1.6823 against the dollar from about DM1.69 at the opening.

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Italy proposes $15bn EC aid to E Europe

By Andrew Fisher in Bonn

MR Gianni De Michelis, Italian Foreign Minister, yesterday proposed the European Community allocate $15bn (£8.8bn) a year in aid to eastern Europe, saying this should be regarded not as a cost but an investment in a region moving towards market-based economies.

In a speech to an economic gathering of the Conference on Security and Co-operation in Europe which opened in Bonn yesterday, he proposed that 0.25 per cent of the Community's gross domestic product be set aside for such aid, far more than the level already proposed by the European Commission itself.

"Naturally, we will have to get this across to public opinion at home," he said. But people would understand the need for such a sum, "because it is not a question of altruism but of far-sightedness". Initially, the funds would have to go through Community and national budgets, and be linked to specific conditions for the borrowers.

The proportion of the EC budget proposed by Mr De Michelis is 10 times the sum the European Commission currently proposes in the way of assistance to eastern Europe. But Mr De Michelis said that provisional calculations relating to eastern Europe showed that "the financial resources which will be required will amount not to billions but to tens of billions of dollars each year".

He added that the CSCE meeting was taking place against a wholly different background from that in which the Helsinki Final Act was signed 15 years ago. Referring to Sunday's East German election, he declared that Germany's division had been the most palpable consequence of Europe's division.

"Our task will be to manage this restructuring and ensure that the integration of Europe and the unification of Germany move ahead in unison." The greatest difficulty would be in getting the economic systems to converge. "And like Germany, the whole of Europe will find that economic unification is its most arduous task."

Events in the east were pushing the international economy towards global interdependence, he said. "The age of the lonely giants is over."

The restructuring of Europe made it necessary to embark on "a huge joint venture". The EC must be the cornerstone of a new grouping. Eastern European countries would have to take the political decisions, create the right framework, and agree to make the right sacrifices. But without EC support, they could not succeed. "This relationship does not depend simply on generosity and political solidarity, but on our self-interest."

De Maiziere calls for swift action

By Leslie Colitt in East Berlin

AT HIS first news conference yesterday, Mr Lothar de Maizière, the designated Christian Democratic (CDU) Prime Minister of East Germany, spoke out in favour of swift economic and monetary union between the two Germanys.

The slight, grey-bearded Premier-elect also urged that the Berlin Wall and other barriers between East and West Germany be torn down as quickly as possible and said replacing them with a fence as was currently being done was a "waste of money."

Mr de Maizière said that he wanted to quickly restore the Länder (states) in East Germany as they existed before being dissolved by the Communists.

He stressed that East Germany would honour its obligations in the Warsaw Pact and wanted German unity to be embedded in the process of European unification.

A lawyer by training, Mr de Maizière coped smoothly with tricky questions on unification and refused to be drawn into speculation whether other senior members of the Alliance for Germany, of which the CDU was the dominant party, were informers of the former Ministry of State Security (Stasi).

Mr Wolfgang Schnur, the head of the Democratic Awakening party, which was part of the Alliance, resigned in disgrace last week after revelations that he had been a paid Stasi informer for years.

Mr de Maizière, who is 50, became chairman of the CDU only last November after its previous long-time leader, Mr Gerald Goetting, was accused of corruption.

He joined the CDU in 1957 when its role as a "satellite" of the Communist party was firmly established.

A professional musician who studied at the Moscow Conservatory and played in several East German orchestras, Mr de Maizière was forced by a nerve ailment to change his profession.

After completing law studies in 1975, he opened a law practice which gave him first-hand insight into the massive abuses of the legal system by the old Communist leadership.

The optimism of Lothar de Maizière, CDU chairman, and his wife Hildegard proves well-founded on their way to the vote

EUROPEAN NEWS

IMF agrees $600m loan for Yugoslavia to check inflation

By Laura Silber in Belgrade

YUGOSLAVIA yesterday announced a $600m standby arrangement with the International Monetary Fund aimed at checking inflation and restructuring the country's ailing economy.

Mr Zarko Trbojevic, vice-governor of the central bank, voiced hopes that the IMF loan would open doors for more credits from the World Bank and the European Community.

The multi-million dollar package will be used in seven instalments over 18 months. The interest rate is at 9 per cent and will be reviewed quarterly. The loan is due in five years with a three-year grace period.

Yugoslavia has a standing debt to the IMF of $860m. Mr Trbojevic said: "IMF directors expressed support for Prime Minister Ante Markovic's anti-inflation programme, based on tight control over both the money supply and public spending and anchoring the exchange rate at seven dinars to DM1."

The Government has also introduced a wage freeze until the end of June. The Markovic Government will face a serious challenge as their programme begins to bite and over 1m workers face losing their jobs when loss-making companies are forced to go bankrupt.

BOC to invest more in Polish helium plant

By Nikki Tait

BOC Group, the UK-based industrial gases company, is to invest a further $4m (£2.5m) to modernise a commercial helium plant at Odolanow in Poland.

In return, the Polish authorities have extended the UK group's liquid helium supply agreement with the plant for a further decade, to the end of the year 2003.

The Polish operation is the only commercial helium plant outside the US. For BOC, the largest wholesaler of helium in Europe, it represents the company's principal source of supply. The plant has supplied liquid helium on an exclusive basis to BOC since production began there in the late 1970s – again with investment from the UK-based group. The modernisation programme is due to be completed by end-September 1991.

● Mr Tadeusz Mazowiecki, the Polish Prime Minister, flies to Washington today, Reuter reports from Warsaw. Underlining Poland's dire economic condition, Mr Mazowiecki and his 17-member party will take a scheduled airline flight for what is probably his most important foreign trip since he took office more than six months ago.

In addition to discussing the German issue, Mr Mazowiecki will thank Mr Bush for his support during Poland's emergence from communism and ask for more financial and technological help, namely an easing of restrictions on technology transfers.

EUROPEAN NEWS

West left wanting in drugs war's new European front

Ignorance about the problem now is a poor start to coping with the future, writes Jennifer Monahan

WESTERN Europe is in no position to offer a coherent response to the next foreseeable shift in the drugs war, likely to involve central and eastern Europe, because it has only a vague grasp of its own narcotics problems.

Experts such as Mr Cees Goos of the World Health Organisation know why eastern Europe has been relatively unscathed: "Non-convertible currencies have been a safeguard," he says.

Where drug addiction is a problem – in Poland, Yugoslavia, the Soviet Union – the substances are home-brew poppy derivatives and, in the Soviet Union, opium. The refined end-products, heroin from opium, cocaine from coca, are not on offer, and no drug baron wants to be paid in roubles.

Anecdotal evidence suggests that hard drugs have started to seep into East Berlin. Even in the countries that are not about to lose the "safeguard", more open frontiers will bring contact with hard-drug users, and increase the risk of AIDS. "When things in the east change, they'll change very rapidly," Mr Goos warns.

However, it is western Europe's lack of knowledge of the scale of its own problems that renders it suspect as a source of advice to its neighbours to the east. There is general agreement that any attack on supply by the producer countries must be matched by an assault on demand and widespread acceptance that law-and-order measures alone are not enough.

There is also recognition of the need for a shared response to a shared problem, especially in the light of the AIDS threat. What is lacking is an appropriate information base for devising a coherent strategy.

The problem is neatly illustrated by the Council of Europe, which, in preparation for a seminar, asked member states to give their definition of "hard-core addicts". One country included only drug-users who had asked for treatment. Another included only drug-users who were unwilling to seek help. "They thus totally excluded each other's populations from the discussion to come," comments the council's report.

In Europe as a whole, the problem of gathering the basic essential information about drug abuse is being addressed by four bodies:

● The World Health Organisation Regional Office for Europe, covering west and east Europe, plus Israel. WHO publishes regular figures, country by country, based on national statistics, the limitations of which it recognises. A more ambitious project is being launched, which aims at giving a better-tuned review every two years, including each country's response to its drug problem.

● The Council of Europe, comprising all 23 countries of Western Europe (including Turkey), with Hungary, Poland Yugoslavia and the Soviet Union as guests. The council has for the past five years been trying to lay the foundations for a common drug information base in western Europe. Its Multi-City study (1987) pulls together data from police, court, medical and other treatment sources, and analyses them in the light of the relevant social and legal contexts, without which they are meaningless.

The study, regularly updated, provides an all-round picture of Amsterdam, Dublin, Hamburg, London, Paris, Rome and Stockholm. But the group receives little funding from national governments.

● The EC, which has come late to the problem of drugs. Headway is being made in fighting supply, with the new directive on the laundering of proceeds. On the demand and treatment aspects, the EC has two initiatives.

Under a mandate from ministers of health, the Commission is attempting to assess the health aspects of drug abuse. It is encountering the familiar gaps and overlaps: drug-related deaths, assessments of levels of abuse, emergency treatment – approaches everywhere differ.

The second EC initiative is political. Under the French Presidency, a European co-ordinating committee at ministerial level was set up last November. The eventual hope is harmonisation of the legal framework. Co-ordination of efforts in treatment and prevention depend once again on the missing basis of comparable information.

● France, which has jumped into the ring to short-cut the process of finding a common language. Mrs Georgina Dufoix, the delegate and co-ordinator appointed by President François Mitterrand, announced last month that France is setting up an "observatory" to co-ordinate both quantitative and qualitative data on drug abuse.

France is to be the initial focus; Europe is to follow. The aim is to find some common political agreement on a simplified set of indices, judicial, medical, preventive. The feasibility is now being studied at the French national statistical institute, Insee.

The scientists and doctors trying to pin down the drugs problem in Europe agree on a number of points.

First, there is no short cut. Second, research efforts are far too fragmented. Third, the cumulative treatment-needs for addicts and AIDS cases will soon way outstrip resources. They also insist that large-scale surveys cannot replace local studies, which alone provide the details of a problem which shifts constantly.

For instance, France four months ago thought it had escaped crack. In November, crack showed up in the Paris Metro. Spain and Italy contradict the tentative expert view of barely a year ago that heroin-abuse in western Europe had been levelling off. In some Northern cities too – Hamburg for instance – heroin appears to have been making a comeback.

Cocaine, meanwhile, remains the chief worry. Larger quantities are being seized, which indicates increasing shipments, via Spain in particular. And convertibility is coming to eastern Europe.

Poles see fresh life at Gdansk

By John Thornhill

IN THE shadows of the cranes of the Gdansk shipyards where the Solidarity movement was born, a new Poland is emerging. Business ventures employing many of the shipyards' former workers are springing up trying to take advantage of the changed economic environment.

One of these is Gestra Polonia, a subsidiary of Siebe, the UK engineering group. Siebe acquired the business when it bought the West German Gestra company in November 1988 and is now investing heavily in its Polish subsidiary's development. It plans to benefit from the emerging opportunities in eastern European markets.

Gestra Polonia was used by its West German parent company to manufacture valves for heat and energy control equipment. Siebe soon realised, however, that it could use the company as a "funnel" into the region and immediately invested heavily in its expansion broadening the range of its products.

The company now manufactures components for several of Siebe's subsidiaries outside Poland, making motor components and thermostat parts. Gestra Polonia exports manufactured components which helps Siebe avoid complications over repatriating profits.

Gestra Polonia employed six people when Siebe took over; this has risen to 70 and the company's two-year business plan, which is several months into operation, envisages creating a further 150 jobs. Siebe has already invested $500,000 (£308,000) installing production equipment and a further $2m is to be spent in 1990.

Mr Barrie Stephens, Siebe chief executive, says the quality of the venture's products already matches that of its Western operations in spite of difficulties with supplies and the lack of a financial infrastructure. "We are already getting added value products at significantly lower cost."

Mr Stephens says the main benefits of operating in Poland are the considerable cost savings and the ready availability of skilled labour. He estimates that the cost of inputs is roughly a quarter of those in West Germany but he is keen not to give the impression that Siebe is operating there just to take advantage of cheap labour.

"The Polish people want to take their place next to the West and they do not want people to think that they are only a bucket shop."

He says one of the most striking features of doing business in eastern Europe is the enthusiasm and co-operation that he has encountered. The last time he visited Gestra Polonia he had a one-and-a-half hour meeting with Mr Lech Walesa, the Solidarity leader, whose office is nearby.

Mr Walesa was enthusiastic about Siebe's involvement in Gdansk and keen to encourage western investment. Mr Stephens says Mr Walesa is very conscious of the fact that unless Poland can build up its economic strength quickly there may be a mass exodus of Poles seeking greater prosperity abroad.

The Polish operation is small by Siebe's standards. Gestra Polonia accounts for only about 2 per cent of Siebe's 3,400 employees and only a minute fraction of its sales of £1.4bn. But Mr Stephens's gaze is fixed firmly in the future. "We are definitely in there for the long-term development of the region."

Lithuanians seek meeting with Gorbachev

LITHUANIAN representatives were seeking an audience with President Mikhail Gorbachev yesterday to reject his demand that they recognise Soviet authority over the rebel republic, Reuter reports from Moscow.

A Lithuanian delegate also tried to tell the Supreme Soviet, or standing parliament, why the republic for declared independence a week ago but he was shouted down by deputies.

Meanwhile partial returns from five Soviet republics where elections were held on Sunday – Estonia, Latvia, the Ukraine, Belorussia and the Russian Federation – indicated that reformist and separatist candidates were doing well.

The mood was especially jubilant in Leningrad, where unofficial results showed radicals swept local races for the Russian parliament and won a majority in the city council.

A member of a six-person delegation sent to Moscow by the Lithuanian parliament, said outside the Supreme Soviet that he wanted to give Mr Gorbachev a letter from Mr Vytautas Landsbergis, Lithuanian President, in response to Mr Gorbachev's ultimatum of three days ago.

The Soviet leader insisted that Lithuania react to a decision by the Congress of People's Deputies, the expanded Soviet parliament, ruling invalid the Baltic republic's parliament's declaration of independence.

"The letter from Landsbergis explains that Lithuania regards the Congress decision as invalid," said a member of the Lithuanian delegation.

Mr Gorbachev has ruled out formal negotiations with the rebel republic but has said he is willing to talk to the Lithuanians.

In Leningrad, the Democratic Elections 90 candidates won 54 per cent of the seats in the city council and 80 per cent of the local seats in the Russian Federation parliament.

Results were mixed in Moscow. In Kiev, candidates supported by Rukh, the Ukrainian nationalist movement won over half the city council seats and 15 of 22 local seats to the Ukrainian parliament. In Latvia and Estonia, pro-independence candidates did well in parliamentary elections.

Swedes and Belgians end tax row

By Tim Dickson in Brussels

A BITTER tax row between Sweden and Belgium, involving tens of millions of dollars of "unpaid" Swedish property taxes, looks close to being resolved.

Swedish Finance Ministry officials who visited Brussels last week are believed to have persuaded their Belgian counterparts to remove an offending loophole in the double taxation treaty between the two countries from the beginning of next year.

If confirmed by the two governments, the change would mean that Swedish nationals living in Belgium would no longer be able to sell their real estate assets at home and avoid hefty capital gains tax payments under Swedish law.

Pressure on the Belgians – stepped up earlier this year when Stockholm served notice that it intended to abandon the current treaty – reflects Sweden's growing frustration that several of its double taxation treaties with other European countries enable nationals living abroad to be sheltered from tax.

The problem has worsened in recent years as increasing numbers of individuals and companies have set themselves up inside the European Community to take advantage of the approaching single market.

Tax lawyers see the talks with Belgium as a test case and many expect the Swedes to get equally tough with other countries.

Swedish officials estimate that more than 100 Swedish nationals moved to Belgium last year and sold property on which they would normally have paid an average of around $500,000 in taxes. Belgium has no capital gains tax on individual property sales.

Stockholm is also unhappy that, under the present arrangements, people like Mr Eric Penser, an important shareholder in the Bofors group who recently moved from Britain to Belgium, do not pay Sweden's wealth tax, and that individuals are able to avoid income tax on private pensions which have been accumulated in Sweden with the help of local tax incentives.

One of the most sensitive aspects from Belgium's point of view is the questionmark over the country's so-called co-ordination centres. These are covered by special legislation and allow multinational companies to conduct their group financing activities and certain other administrative support activities on highly favourable fiscal terms.

An end to the dispute is important for both Belgian and Swedish companies doing business on the other's territory since they would face a substantial additional tax bill in the absence of a new double taxation treaty.

Bogus cops in Boston art haul

By Peter Riddell, US Editor, in Washington

A VERMEER and three Rembrandts were among a dozen paintings stolen from the Isabella Stewart Gardner Museum in Boston in the largest art robbery in the US, and among the biggest ever.

Boston police estimate the value of the works, also including five by Dégas and a Manet, as being at least $100m. This is only a broad estimate since the pictures have not been sold this century and will be impossible to dispose of on the open market since they are so well known. Ms Karen Haas, the museum curator, talked of a value of "hundreds of millions."

The Vermeer, called The Concert, is one of only 35 of the artist's works known to exist, while one of the stolen Rembrandts, The Storm on the Sea of Galilee, shows the artist's use of light in the rare form of a dramatic seascape.

The thieves gained entry to the museum at about 1am on Sunday posing as police. They then tied up the security guards before going to the museum's Dutch Room. The robbery was discovered by cleaners at 8am.

The Federal Bureau of Investigation described the robbery as "a professional job."

Tight money and iron nerves in Brasilia

Collor chose the toughest of four blueprints to smash inflation, writes Ivo Dawnay

EVERYONE had expected a shock, but no-one thought Brazil's dynamic young president would use the legislative equivalent of nuclear weapons.

Yesterday, the fall-out from the package of anti-inflation measures and economic reforms announced by President Fernando Collor on Friday was still rumbling as banks and markets prepared to open after a three-day bank holiday.

His attack on Brazil's 85 per cent a month inflation rate included far more than the dramatic liquidity squeeze that made the headlines.

His cost-cutting administrative reforms involving thousands of civil service lay-offs, the closure of dozens of government agencies and the abolition of countless regulations would normally have been stunningly controversial alone.

So too would the measures that oblige big financial institutions to buy non-tradeable stakes in state sector industries before privatisation, or the dramatic liberalisation of import regulations.

All this has been overshadowed by the breathtaking decision to sequestrate a sum of about $100bn – equivalent to 30 per cent of Brazil's total gross domestic product – from bank, savings and overnight accounts.

Under the provisional measure tabled, citizens and companies are forbidden from withdrawing more than 50,000 cruzeiros (roughly $1,000 at last week's official rate) from their bank or savings accounts for an undefined period. Only Crs25,000, or 20 per cent of the individual's total accounts held in overnight or other interest bearing deposits, can be withdrawn.

The remaining old (that is, locked-up) cruzados will be convertible into transactable cruzeiros for 18 months and then will only be gradually released, adjusted to allow for inflation plus interest of 6 per cent a year.

Some exemptions have been agreed for groups such as pensioners. Companies too will be allowed access to funds to pay wage bills. But for the most part, the rules are rigid and no-one has escaped.

In future, those in urgent need of cruzeiros must bid in central bank auctions for the right to convert their old cruzados.

At a stroke, the theory has it, Mr Collor has therefore soaked up the excess liquidity in the market, temporarily eliminated government's debt service burden, given value to the new cruzeiro currency and put sharp downward pressure on inflation.

Few bankers and businessmen doubt that the new president's coup is unconstitutional. It appears a prima facie breach of property rights.

Collor: monetary Robin Hood

But the government insists the action is not "confiscation" and has even added an equally dubious legal measure forbidding citizens to take out injunctions against the plan. Most believe that the law will choose to turn a blind eye.

If the legal hurdles can be traversed, what then of the next big obstacle – Congress? Mr Collor's sworn enemies on the left have been forced to concede that the president has carried out his promise to fight inflation with the wallets of the rich.

Only an estimated 10 per cent of Brazilians will suffer from the freeze on accounts. It is therefore the middle class's conservative representatives in Congress – the president's supposed allies – who must swallow hardest.

Some changes – an increase in the amount account holders may withdraw, for example – may be pushed through. But few believe the package will be thrown out or radically altered.

Most economists agree that the plan is sophisticated and coherent, if complex to administer.

One school argues that the liquidity squeeze is far too tight and will bring with it a deep recession. That is supported by a claim yesterday from the Sao Paulo Federation of Commerce that retail sales will crash by up to 75 per cent, bringing a sharp rise in unemployment.

Others point out that by starting strongly, Mr Collor and his team can turn on liquidity like a tap, releasing funds when and if they choose.

Mr Daniel Dantas, a leading economist and banker praised the plan at the weekend. But he warned that day-to-day management would be crucial.

By abandoning its credibility as a borrower, the Government would have no capacity left to finance its debt beyond printing money. The need for a massive cut in federal spending to balance the budget was thus more urgent than ever.

"The sensibility of the deficit to debt is now much higher," he said. "They will have to be extremely conservative."

Mr Collor must also prepare to batten down the political hatches against a backlash on several fronts. His other measures have succeeded in offending powerful lobbies from farmers and financiers to civil servants and state industry employees. Strikes and protests look inevitable.

Much will depend on how the Brazilian majority rallies behind its Robin Hood. There is some evidence that this process has begun and will accelerate as prices stabilise and wages gain in purchasing power.

Meanwhile, Ms Zelia Cardoso de Mello, the new Economy Minister, must negotiate a route past the corporate lobbyists already besieging her offices for price rises, privileges and exemptions.

It was Ms Cardoso, a 37-year-old economics lecturer, who presented the president-elect with four blueprints of varying toughness for the economy. Mr Collor, with characteristic machismo, plumped straight for the toughest one.

Money may be tight in Mr Collor's brave new Brazil, but for the first time in years there appears to be no shortage of iron nerves in Brasilia.

Trudeau set to enter bitter row on constitution

By Bernard Simon in Toronto

CANADA's charismatic former prime minister, Mr Pierre Trudeau, will return to the political arena today to add his voice to the increasingly divisive debate on Canada's constitutional future.

Mr Trudeau, 71, is expected to give a powerful boost to opponents of the controversial constitutional agreement known as the Meech Lake Accord when he addresses a press conference in Montreal, ostensibly to launch a book of essays on his years in government. Similar events will follow in Toronto and Ottawa later this week.

Apart from a strong denunciation of the accord shortly after it was signed in 1987, Mr Trudeau has kept a low profile since he retired from politics as leader of the Liberal party in 1984. But he still casts a formidable shadow over Canadian politics, and his reappearance seems timed for maximum effect as the Meech Lake debate enters a critical stage. Although the accord was signed by Mr Brian Mulroney, the Prime Minister, and provincial premiers in 1987, it must be ratified by all 10 Canadian provinces by June 23 if it is to take effect.

Two provinces, Manitoba and New Brunswick, have so far refused to endorse it, while Newfoundland is threatening to rescind its earlier ratification.

The agreement enables Quebec, Canada's only predominantly francophone province, to sign the 1982 federal constitution in return for gaining formal recognition as a unique part of Canada and the right to preserve and promote its distinctiveness. All 10 provinces gain a number of other powers.

Meech Lake's supporters have grown increasingly strident in warning of the impetus which non-ratification would give to separatists in Quebec. Last weekend, Mr Joe Clark, External Affairs Minister, raised the spectre of political violence, linking a collapse of the agreement to the separatist crisis of the early 1970s, when Ottawa resorted to emergency war measures to quell a spate of bombings and kidnappings in the francophone province.

On the other hand, the accord's critics argue that by giving extra powers to Quebec and the other provinces, the accord will hasten the fragmentation of Canada.

In excerpts published from his contribution to the book of essays, Mr Trudeau accuses Mr Mulroney of "dismantling Canada for the benefit of the provinces."

CANADA has called a moratorium on C$182m (£95m) of official debt owed to it by 11 Commonwealth Caribbean countries, Canute James reports from Barbados.

Mr Brian Mulroney, the Canadian Prime Minister, said in Barbados yesterday that the debt relief was intended to support the region as several countries attempt to restructure their economies. The Canadian Premier is in Barbados for a two-day meeting with the leaders of 17 Caribbean countries covering economic relations between the region and Ottawa.

US 'still committed to open investment policy'

By Peter Riddell, US Editor in Washington

ONLY ONE foreign acquisition of a US company has been prohibited out of more than 280 such purchases reviewed by the US Federal authorities since summer 1988 under strengthened scrutiny powers.

This was revealed yesterday by Mr Charles Dallara, the assistant Treasury secretary for international affairs, in arguing that the US remains firmly committed to an open investment policy, which, he said, was not at odds with protecting national security.

Testifying to a House of Representatives committee, Mr Dallara sought to balance the growing concern in Congress about the implications of the rising level of foreign acquisitions with the worries of overseas investors about possible restrictions.

He focused on the Exon-Florio provision of the 1988 Trade Act which strengthened presidential powers to stop purchases and order divestiture on national security grounds.

More than 700 pages of comments were received by the Treasury on draft regulations published last July. These, he said, focused on the need for a clear definition both of national security and of what constitutes control, the absence of a limiting provision which would remove the threat of a presidential action against investors not notifying under the present voluntary procedure, the status of foreign lenders making commitments to finance an acquisition of a US company in case of a default on loans, the need for special treatment for hostile and time-sensitive transactions and the desirability of a formal fast track procedure.

The Treasury hopes to have final regulations by the summer and Mr Dallara said it had been "a deliberate process" because of the importance of national security and the time necessary to achieve a consensus among several agencies.

The Association for International Investment, a lobbying group for leading overseas investors, has pressed for clarification on several of these points, while also separately warning against new Congressional action on, for example, access to confidential data which might discourage new investment.

Mr Dallara noted that the Committee on Foreign Investment in the US, a Treasury run inter-agency group, had reviewed over 280 transactions since August 1988. Last year filings covered about 30 per cent of foreign acquisitions of US companies valued at more than $1m. Notifications are currently coming in at the rate of 350 a year, or 50 per cent of acquisitons of more than $1m.

The president can only ban a foreign investment - as he did last month with the takeover by Catic of China of Mamco, a Seattle-based aircraft parts manufacturer - if the acquirer might take action which threatens to impair the US national interest and if existing laws are not adequate or appropriate.

Marcos and Khashoggi show arrives in town

By Alan Friedman in New York

JURY selection begins today in the racketeering and fraud trial of Mrs Imelda Marcos, former first lady of the Philippines, and Mr Adnan Khashoggi, the millionaire Saudi businessman. And New York's social world is buzzing.

The Marcos-Khashoggi trial centres on a 77-page indictment charging that Mrs Marcos and Ferdinand, her late husband, embezzled $103m from the Philippine Treasury and used it to buy Manhattan real estate and art works. Mr Khashoggi, once thought of as the world's richest and most flamboyant jet-setter, is charged with aiding the Marcoses through mail fraud and obstruction of justice.

Not since the marital rupture of Donald and Ivana Trump has the Big Apple been so excited about a couple of jet-setters who, as one tabloid put it yesterday, "fell to earth."

Mrs Marcos, who has been living in exile in Hawaii, had her $5m bail posted in 1988 by billionaire heiress Doris Duke. Mr Khashoggi, who was extradited to New York from Switzerland last summer, has had to walk around with the ignoble distinction of wearing an electronic ankle bracelet to monitor his movements.

It could be weeks before the trial – the last legacy of former US Attorney Rudolph Giuliani – gets under way, as jury selection is likely to be tricky. Mr John Kennan, the Manhattan federal judge, is pledged to disqualify any prospective juror who already has an opinion about the defendants.

But it is apparently going to be a challenge to find ordinary people who feel neutral about either the legendary "Iron Butterfly" of Manila or Mr Khashoggi, who was believed to be buttressing himself at his $26m suite in the Olympic Towers on Fifth Avenue.

"THE ISSUE IS NO LONGER APARTHEID, BUT WHAT KIND OF SOCIETY WILL REPLACE IT."

Gavin Relly, Anglo American Corporation. February 1990.

South Africa today stands on the threshold of enormous change. It is an exciting, if dangerous moment in its history.

At last, for the first time in 40 years, South Africans of all political beliefs can take part in open, free and vigorous debate about the future of their country.

For the first time, black and white political leaders are starting to talk to each other about a common, not a divided, South Africa.

The dialogue has just begun, but the process is irreversible – a process that will inevitably see the collapse of the last remnants of apartheid, and the emergence of a radically different society.

This has all come as welcome news to the Anglo American Corporation, South Africa's biggest industrial and mining group.

We have always believed that South Africa can only realise its true potential if it becomes a prosperous, non-racial, multi-party democracy.

For political freedom will mean little if it is not underpinned by economic freedom as well. Real prosperity can only be achieved if every South African is free, not only to cast a vote of equal value, but also to participate in wealth creation.

Under apartheid, the majority of South Africans could do neither.

Which is why, for even more than 40 years, we have spoken out consistently and vocally against the apartheid laws which have restricted both individual freedom and economic growth.

In a post-apartheid South Africa all its people must have equal access to both the ballot box and the market place, if they are to be liberated not only from oppression, but from poverty.

And if South Africa is to become the engine of growth for all of Southern Africa.

For South Africa's economic problems – high unemployment, a low growth rate, and a crippling shortage of skills – will not miraculously vanish when apartheid goes.

And just to substitute one state-controlled, interventionist society for another would do nothing to help solve them.

Anglo American is a South African company and proudly so. We are confident about South Africa's prospects and our own.

Which is why we will invest R8 billion in South Africa over the next three years alone.

Why we are encouraging the explosion of small business by assisting black entrepreneurs with training, guidance and contracts.

Why we have established non-racial schools where white and black South Africans can learn together – and learn to know each other.

Why we are funding both university places and bridging programmes to help students overcome the deficiencies of 'apartheid education'.

Why we have established new technical colleges where black South Africans can acquire the skills they and South Africa so desperately need.

Why we have given our employees a stake in our corporation, and a share in its wealth through a free, voluntary share ownership scheme.

As South Africa's biggest business, we have always believed in a future beyond apartheid.

When apartheid finally disappears, we want the South Africa that emerges to escape from ignorance, envy, deprivation and fear.

We want South Africans of all races to be free, not only to vote, but to create more wealth for themselves and prosperity for the whole country.

ANGLO AMERICAN CORPORATION OF SOUTH AFRICA

IF YOU'D LIKE TO KNOW MORE ABOUT WHAT WE'RE DOING, PLEASE WRITE FOR OUR FACT BOOK TO: AAC, DEPARTMENT NO. FT01, PO BOX 43, LONDON EC1P 1AJ. ALLOW 28 DAYS FOR DELIVERY.

OVERSEAS NEWS

Indian budget will target tax revenue

By David Housego in New Delhi

THE new Indian administration of Mr V.P. Singh yesterday introduced a budget that relies on a massive increase in tax receipts aimed at containing a still substantial deficit.

The budget is based on a 19 per cent increase in tax revenue of which only about a quarter, or Rs19bn (£700m), comes from new tax measures. The government appears to be looking for the rest from reducing tax evasion. Mr Madhu Dandavate, the Minister of Finance, told Parliament that the Government would be launching "a sustained and multi-pronged drive against the proliferation of black money which is a social sin and an economic evil".

Overall expenditure is projected as increasing by 7 per cent (below the inflation rate) to Rs945bn.

Among items to rise more sharply are defence, where expenditure is to increase by 10 per cent. The government's lack of room for manoeuvre in making fresh outlays is reflected in the watering down of its pre-election pledge to provide debt relief for farmers, artisans and weavers.

The budget provides for the banks to waive only Rs10bn of the estimated Rs140bn of outstanding rural debt – and says the measure is not to be extended. Overall the budget seeks to shift the burden of taxation away from the less well-off and further towards the middle classes and the corporate sector.

Mr Dandavate said that "items used by the affluent sections of society" would have to bear more indirect taxes as he announced an increase in duties on cars, washing machines, and consumer electronics.

He also raised petrol prices by 15 per cent in a move which is designed to both raise revenue and save foreign exchange. For the corporate sector, Mr Dandavate announced an unexpected reduction in corporation tax from 50 to 40 per cent – while at the same time abolishing investment allowances.

While the overall effect is to raise an additional Rs8bn, the latter measure will hit capital intensive industries such as petrochemicals.

The budget deficit - defined as net borrowing by the government from the Central Bank - remains at Rs72bn or just below the level of deficit projected by the former government of Mr Rajiv Gandhi for this year.

Sri Lanka pull-out ahead of schedule

India's intervention in Sri Lanka will end on Saturday after two-and-a-half years with the withdrawal of the remaining 4,000 Indian troops, David Housego writes.

General A.S. Kalkat, the Commander of the force, said that "barring bad weather or some other unforeseen hitch" his troops would complete their withdrawal from Trincomalee, on the eastern coast, a week ahead of schedule. They are leaving the Tamil Tigers – the Liberation Tigers of Tamil Eelam (LTTE) – in de facto control of the north and east of the country.

At the height of the first big operation by Indian forces overseas, more than 80,000 troops were stationed there.

Peking to boost sluggish economy

By Peter Ellingsen in Peking and Colina MacDougall in London

CHINA'S National People's Congress, its rubber-stamp parliament, assembles today amid predictions that Peking will move to boost the country's sagging economy but retain its present government leadership despite earlier unofficial reports of impending change.

Li Peng, the Prime Minister and a prime mover behind last year's bloody suppression of pro-democracy demonstrators in Peking, is due to deliver the keynote speech to the opening session.

Recently Peking reports claimed that he might be moved to a less conspicuous post, while his mentor, President Yang Shangkun, 82, also hated for his role in the massacre, would gracefully retire.

Yao Guang, NPC spokesman, dismissed such reports, stressing that the congress theme would be "stability and unity" – Chinese propaganda's standard refrain whenever both are seriously deficient.

However, with the hard-liners apparently riding high at present, such changes seem unlikely. The exception is the chairmanship of the Central Military Commission, the last government post held by Deng Xiaoping, China's elder statesman, from which he has already said he would resign. He will be replaced by Jiang Zeming, the current party leader.

In his speech Li Peng is likely to defend the 18-month austerity drive which has brought inflation down to single figures from the 18 per cent plus of 1988, though he will have to acknowledge the unemployment boom, the collapse of consumer confidence, and state-run enterprises default on debts of more than 110bn yuan ($22.5).

Deng Xiaoping

The economic slowdown has pushed the jobless total to around 4 per cent, and left an estimated 100 million out of work or under-employed in rural areas.

To handle these escalating problems, the Congress will see the Government ease controls on credit and encourage spending in a bid to shore up falling industrial output, the official China Daily predicted on Sunday.

The Government, which has already reduced consumption tax on locally-made colour televisions and commercial loan interest rates, is likely to lower interest rates on bank deposits to encourage spending, and move the huge stockpile of unsold consumer goods.

Unusually, the China Daily criticised the government, saying industrial output would not have fallen so sharply over the past five months if action had been taken last year.

Security in the capital has been stepped up in advance of the Congress, with helmeted troops on duty again in Tiananmen Square, one of the focal points of last year's protests. The army withdrew when martial law was lifted in January.

● The Soviet Union is relinquishing its 69-year-old role as Mongolia's debt-mother, but many people here say it is leaving the country as it found it: an impoverished orphan, Reuter reports from Ulan Bator.

Newly-formed democratic parties and an emboldened official press have in recent months launched an unprecedented deluge of criticism against Moscow, and the Government seems content to let the acrimony continue.

"I do not think it is wrong to criticise (the Soviet Union) since shortcomings in our relations do exist," said Gombosbavlyn Otshirbat in his first news conference last week after being elected as the general secretary of the Communist Party.

The Soviet Red Army marched into a war-ravaged and starving Mongolia in 1921. It quickly eradicated all foreign influence, particularly Chinese and Japanese, and nurtured an obedient government loyal to Moscow's command.

MR F W de Klerk, the South African President, is expected to visit Britain in May to meet Mrs Margaret Thatcher, the British Prime Minister, Patti Waldmeir writes from Cape Town. The meeting was announced yesterday by Mr Douglas Hurd, the Foreign Secretary, who held talks with Mr de Klerk in Cape Town on the first day of a two-day visit to South Africa.

Efforts were continuing last night to set up a meeting between Mr Hurd and Mr Nelson Mandela, the deputy president of the African National Congress. Mr Mandela has declined to meet Mr Hurd in South Africa, but may hold talks with him, and his US counterpart, Mr James Baker, during Namibian independence celebrations which begin today.

ANC leaders have criticised Britain for its opposition to economic sanctions against Pretoria. Ironically, however, a small ANC honour guard turned out to greet Mr Hurd when he toured British aid projects in the Brown's Farm squatter camp, near Cape Town.

Following talks with Mr de Klerk and Mr Pik Botha, the South African Foreign Minister, Mr Hurd described the pace of change as "impressive" and announced an increase in bilateral British aid to black South Africans. An extra £10m ($16.20m) would be spent over the next three to four years. Britain's current aid to South Africa totals £7m. Mr Hurd is pictured above touring British aid projects in the Brown's Farm squatter camp, near Cape Town.

Mr Hurd's visit was the first by a British Foreign Secretary since Sir Geoffrey Howe visited South Africa in 1986, representing the European Community.

Bangladesh curbs public spending

By David Housego

THE Bangladesh Government has announced it will curb public spending in a move believed aimed at securing release of fresh credits from the International Monetary Fund and the World Bank.

The measures come in the wake of last Friday's resignation of Mr Wahidul Haq, the Finance Minister, blamed for this year's sharp worsening in the budget deficit which has strained relations with the western financial establishment.

Ministries have been told to hold current expenditure for the financial year ending June at the same level as 1988-89. Normally such spending is highest in the final months of the financial year. All transfers of diplomats have been suspended until the end of the year.

The Government's current budget had swung from a projected surplus of Taka 9bn (£171m) during the current year to an estimated deficit of Taka 10bn. The IMF and the World Bank were withholding credits of about $500m because of concern over short-term economic management.

The disagreement seems to have come to a head with the recent visit to Dhaka of Mr Barber Conable, World Bank president. This alerted President Mohammed Ershad to how seriously the two institutions viewed the growth of the deficit – which meant that donor nations were being called on to finance both development and current spending.

By contrast, Mr Haq, was less worried by macroeconomic stability arguing that "sometimes a little extravagance, a little daring is rewarded". He has been succeeded by Maj Gen (Retd.) M.A. Munim who is also Minister of Agriculture.

Shevardnadze backs Angolan peace

Soviet Foreign Minister Eduard Shevardnadze, at the end of an 18-hour visit to Angola yesterday, supported Angolan government efforts to end a 15-year war against US-backed rebels, Reuter reports from Luanda.

Thailand's interest rate and wage increases well received

By Roger Matthews in Bangkok

THE THAI Government's attempt to check inflationary pressures by allowing the central bank to raise interest rates, while responding to union demands with a 15 per cent increase in the daily unskilled labouring rate, was generally well received in Bangkok yesterday.

Parties within the ruling coalition claimed that the package, announced on Friday, was politically well judged and demonstrated the will to tackle inflation, together with an appreciation of the difficulties facing many working class families in the capital. Basic daily rates will increase from Baht 78 ($1.62) to Baht 90 on April 1 in Bangkok.

Although some employers expressed dismay at the government concession, the impact of the increase on costs and profitability will be limited by the extent to which the agreement is actually applied. Unions claim that relatively few employers pay the present Baht 78 daily rate, due to the surplus of unskilled labour available in the capital.

The main banks will, meanwhile, be meeting informally this week to set new lending and deposit rates. As widely predicted, the ceiling on commercial bank lending rates was increased from 15 per cent to 16.5 per cent, while the banks are now permitted to set their own fixed-term deposit rates.

Bankers predicted yesterday that it may take some time for the market to adjust to the changes and for a consensus to emerge. With the the market still enjoying plentiful short-term liquidity, banks are competing to lend for attractive projects and may resist an immediate increase in interest rates.

But in general they welcomed evidence of the Government's desire to slow the economy after three years of double-digit growth - last year at 10.8 per cent - which has pushed inflation to its present annual rate of over 6 per cent.

Racism row stirs up Australian election

Kevin Brown sees Asian immigration move to the forefront of a dull campaign

THE explosive issue of Asian immigration moved to the forefront of the Australian general election campaign yesterday as the two main party leaders swapped angry accusations of racism.

The exchange electrified an otherwise dull campaign, but could have serious consequences for Australia's relations with its Asian neighbours, especially Japan.

The focus of the row was a Japanese proposal for a "city of the future" to be sited in Australia and populated largely by foreign scientists and academics.

The proposal, intended to improve Australia's access to high technology, was a non-issue in the first four weeks of the campaign because of the impending publication of a joint Australian/Japanese feasibility study, due to be released in June.

So most voters were surprised when the idea was suddenly rejected yesterday by Mr Andrew Peacock, a leader of the opposition Liberal/National Party in the Coalition.

The timing of the announcement prompted claims the coalition was playing the "Japan Card" to close a 5 per cent gap in the opinion polls by tapping anti-Japanese sentiment. Mr Bob Hawke, Labor Prime Minister, accused Mr Peacock of "talking dangerous nonsense" and "an abuse of the obligations of political leadership".

Labor officials said the coalition was making an ugly bid to win votes by promoting policies likely to appeal to the worst elements in Australian society.

Mr Peacock also faced a hostile media response – notably in a front-page comment in The Australian, the only non-specialist national daily newspaper – which accused him of "scaremongering on a racial theme".

The comment, signed by Mr Paul Kelly, one of Australia's most respected political commentators, said the opposition leader had "prejudiced the national interest in a way that should eliminate him from the Prime Ministership".

The newspaper added in its main editorial: "His appeal is to the fearful gut instincts of racism, to that minority of voters who yearn for the bygone days when Australia was white".

Campaigning in the state of Queensland, where the high profile of Japanese investment, immigration and tourism is a sensitive local issue, Mr Peacock appeared to be furious at a press conference called to respond to the allegations. Angrily defending his own "unimpeachable" record on immigration, Mr Peacock said his objection was to the potential creation of an "enclave" which would not be integrated with the rest of Australia.

He accused Mr Hawke of "a desperate attempt" to smear the opposition, and claimed the Prime Minister's own record was flawed because he had failed to oppose Labour's post-war "White Australia" policy, abandoned in the 1970s.

Tempers were running so high that in one bout of televised table thumping Mr Peacock managed to knock over most of the tape recorders being used by the reporters he was haranguing. It was a startling performance from the man who is regarded as Australia's most patrician politician.

But in spite of his anger, Mr Peacock did not explain why he had chosen to announce such an important change of coalition policy so close to polling day.

The announcement could boost the coalition's chances in some marginal seats, particularly in Queensland, where Labor is hoping to make gains following a corruption scandal involving the former National Party in the state government.

However, the episode will fuel Labor claims that the coalition is making policy on the hoof without thinking through the issues involved.

Mr Peacock's sudden change of tack could also be seen as evidence of a lack of judgment in an election which has become increasingly sharply focused on the two leaders.

This is a contest in which Mr Peacock cannot afford to make mistakes since his approval rating is running at around 26 per cent, compared to 59 per cent for Mr Hawke.

Mr Peacock's fitness to move into the Prime Minister's office in Canberra has been an issue throughout the campaign, partly because of the circumstances in which he took over the Liberal leadership after an acrimonious bout of infighting last year. It is an issue Mr Hawke has not hesitated to exploit, claiming that Mr Peacock is indecisive and does not command the full support of his own party.

However, the immigration row appeared to have done the coalition leader little harm when he left the press conference for a walkabout in a Brisbane arcade.

Passers-by cheered as Mr Peacock shook shoppers' hands, ignoring a small group of protesters carrying placards reading "No man under the tan", and "Don't kiss my baby".

There was a similarly warm welcome from businessmen at a lunch organised by the Committee for the Economic Development of Australia, where Mr Peacock repeated his rejection of the high-technology proposal. Mr Peacock was at pains to stress that he favoured continued foreign investment in Australia.

However, critics said the coalition's change of policy could damage inward investment prospects by sending a message that Australia wants to keep Asia at arm's length.

Mr Bob Hawke, in a last bid to ensure the "Greenie" vote re-elects him as Prime Minister, yesterday announced a package of new environmental measures worth more than A$25m (£11.9m), writes Chris Sherwell.

The main feature of the package is a A$17m three-year research programme on the "greenhouse" effect and climatic change. The Government will also be seeking a listing from World Heritage for two sub-Antarctic islands and for Shark Bay in Western Australia.

Texas Instruments in chip venture with Kobe Steel

By Louise Kehoe in San Francisco

TEXAS Instruments, the US electronics and semiconductor maker, has formed a joint venture company with Kobe Steel of Japan called KTI Semiconductor to manufacture semiconductor chips in Japan.

Kobe Steel will own a majority interest in the company, and TI will have a minority interest. An option exists for TI to increase its ownership percentage.

The companies will build a $350m (£205m) chip plant in Hyogo Prefecture, Japan, to produce devices aimed primarily at the Japanese consumer electronics market.

The arrangement is the latest in a series of technology and marketing accords between US semiconductor producers and Japanese companies and comes as the US Government is pressing Japan to boost its purchase of foreign-made semiconductor products.

The TI-Kobe venture is likely to contribute toward an easing of trade tensions between the two countries.

Semiconductor products made by the venture will be sold exclusively to TI for distribution and sale by TI to customers in Japan and other markets, the companies said.

Building the jointly-owned plant will begin early next year and is due for completion by the end of 1991.

Full-scale production should be achieved by mid-1992. Total investment is estimated at about $350m, including land, building and equipment.

Kobe Steel will provide most of the equity capital required to start the new company.

TI will provide extra funding, as well as technical assistance in the form of design and manufacturing technology needed to build and operate the plant.

Both parties will contribute personnel to the joint venture.

Britain aims to curb other nations' export credit loss

By Peter Montagnon, World Trade Editor

THE UK is to mount a vigorous campaign in the European Community and the Organisation for Economic Co-operation and Development to persuade other industrial countries to curb spending on official export credits.

Export Credits Guarantee Department officials have told exporters they will take account of the prospects of success in this campaign when setting new premium levels in June as part of the ECGD's medium-term credit insurance services reform.

The reforms are expected to include big increases in premiums for insuring exports to riskier markets. Though they have been in the pipeline for some time, preparations have alarmed the export industry, which fears the extra insurance cost will squeeze them out of the world capital goods market.

Exporters say ECGD officials have been seeking to reassure them by pointing to statements by Mr Nicholas Ridley, Trade and Industry Secretary, that the reform should not make UK companies uncompetitive internationally.

The ECGD is now expected to moderate its planned premium increases if it appears unlikely that other agencies can be persuaded to raise their own charges in tandem. But exporters remain concerned that the ECGD is tightening its own rules when it is already tougher than many other agencies in setting cover limits and premiums.

Its practice of charging a premium on both the interest and principal of credits puts it at the expensive end of the spectrum as a provider of insurance services, and there is no escaping the fact that the intention of the reforms is that the ECGD should charge higher premiums, thereby reducing its losses.

The reform of the department's medium-term credit insurance facilities relies on introducing new actuarial techniques allowing the ECGD to calculate the proportion of its portfolio likely to end up producing a loss.

The technique can be used to assess the business of other export credit agencies and disclose how far they are subsidised. The ECGD believes this should give the UK the weapons it needs to make other countries produce more transparent accounts for their export credit agencies and embarrass them into cutting back on losses.

Exporters add they have been told by the ECGD not to be over-concerned about cover being rationed in markets where the agency is already heavily exposed. This is part of the reforms and is designed to help the ECGD overcome its heavy concentration of risk in a handful of leading markets such as Hong Kong and China.

Yet ECGD officials acknowledge they will have to be careful about rationing cover in a number of these markets because of the diplomatic difficulties this could cause.

Brussels offers to ease tropical imports barriers

By William Dullforce in Geneva

THE European Community proposes to abolish or reduce barriers to imports of tropical products currently valued at Ecu10.4bn (£7.7bn) a year as part of its contribution to a successful outcome of the Uruguay Round of the General Agreement on Tariffs and Trade. Liberalisation of trade in tropical products, of vital interest to developing countries, is an agreed priority for the Round.

Brussels' offer would totally eliminate customs duties on unprocessed tropical products, cut tariffs on semi-processed products by 35 per cent and reduce them by 50 per cent on finished products. Annual Customs revenue would be cut from Ecu690m to Ecu240m.

In addition, the Community said it was willing to reduce internal levies on coffee, cocoa and tea, if exporters could show that these taxes had a real impact on trade in these products.

In fact, these levies, applied in West Germany and Denmark, could well disappear, as the 12 member states harmonise their internal tax regimes in preparation for the single market in 1993.

The Community's proposal is double-edged and conditional. It would expose to greater competition more than 60 African, Caribbean and Pacific countries, whose exports to the EC enjoy preferential treatment. Of the Ecu10.4bn in imports covered by the offer, Ecu7.7bn-worth are currently affected under preferences. But Tran Van Thinh, head of the EC delegation to Gatt, said neither the Community nor the exporting countries affected could ignore the multilateral thrust behind the trade-liberalising talks.

The EC's offer excludes bananas, one of the most sensitive items in the spectrum of EC trade, and all vegetable oils apart from coconut oil. Some excluded items come under the talks on the reform of world farm trade.

Brussels made preliminary cuts in tariffs on some tropical products unilaterally last July. It said that its latest offer could be "developed, consolidated or reduced" in accordance with the exporting countries' readiness to remove restrictions on access to their markets in the Uruguay Round.

March 15 was the deadline for importing countries to table offers to remove barriers to imports of tropical products. So far, the Gatt secretariat has received 15, including that from the EC. More are expected.

Soviet-US trade talks open

THE Soviet Union and US have opened four days of talks aimed at dismantling barriers to bilateral trade and extending a multi-billion-dollar pact that governs US grain sales to the Soviet Union, Reuter reports from Vienna.

President Mikhail Gorbachev and President George Bush are seeking a trade accord in time for a June superpower summit. Two days will be spent drafting a bilateral agreement, expected to offer Moscow better trade terms, and possibly leading to US-backed credit.

The Vienna meeting is the third set of talks on the trade accord, which is a prerequisite for the US granting the Soviet Union Most Favoured Nation (MFN) trade status, with the lowest possible tariff rates on exports to the US.

Mr Julius Katz, deputy US Trade Representative, said he did not expect to wrap up the trade talks this week. Washington is known to want to limit MFN status to one year initially, while Moscow prefers a three-year accord.

Uncertain fingers loosen the textiles knot

EC producers warily embrace the principle of an open market, writes Lucy Kellaway

SENSIBLE, pragmatic and balanced, was how Mr Frans Andriessen, the European Community's trade commissioner, described the Community's plans for phasing out the Multi-Fibre Arrangement and bringing the heavily protected textile industry under the umbrella of the General Agreement on Tariffs Trade.

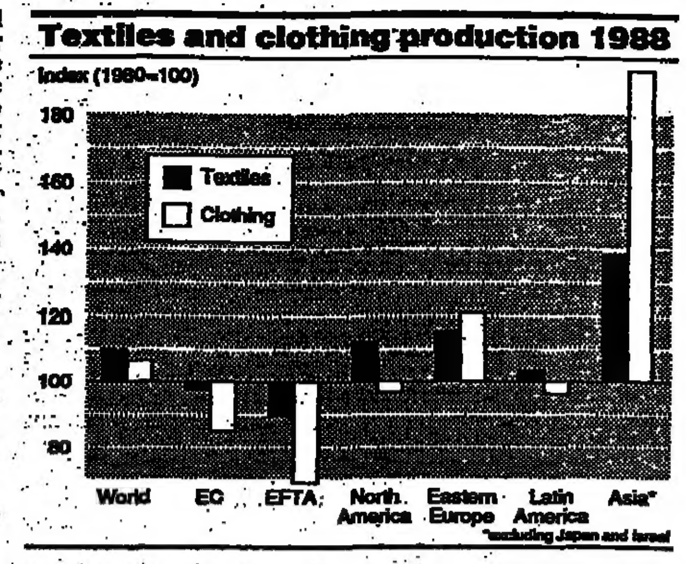
His audience, claimed to be the biggest gathering ever of European textile producers, tightly squeezed into a Brussels hotel last Friday, applauded with politeness rather than enthusiasm.

The next speaker, by contrast, was met with a rapturous response. Mr Julien Charlier, president of the European Largest Textile and Apparel Companies, Eltac, described the importance of the textile industry to Europe and the risks it faced.

He spoke of the 3m people employed in textiles in Europe, of the 100,000 companies with their $150bn turnover, of Europe's $10bn trade deficit in textiles and of its wages that were 20 times those of its Asian competitors.

He spoke of the threats posed to the European industry by the abolition of domestic quotas in 1992, and by the opening of the textile industry to east Europe, and of the vital dependence of the southern European countries on their clothing and textile industries.

Textiles and clothing production 1988



However, even Mr Charlier conceded the ultimate aim of moving towards a free market in textiles. Indeed it was no longer a matter of whether the industry should abandon the present system in which markets were now closed and competition highly distorted, but how and when.

The EC's position, as spelled out by Mr Andriessen, is that when the present MFA system of bi-lateral restrictions expired next year it should not be renewed in its present form. It would be replaced by a system of safeguards that would be phased out in steps, each tied to moves by other countries to open their markets.

Thus the MFA would gradually disappear, and with it would go all the tariffs, non-tariff barriers and balance of payments restrictions that presently hamper world trade in textiles.

Phasing out the MFA would both give protected industries time to become competitive, and would provide time for the Gatt rules to be strengthened to make sure that trade is fair as well as free.

Four areas in particular were mentioned by Mr Andriessen in which trade practices need to be tightened: dumping, subsidies, counterfeiting and on fair access to raw materials. The aim was that the Uruguay Round of trade negotiations under Gatt would produce such stronger rules as well as a fixed date by which the textile industry would be subject to them.

Many of the industry's representatives agreed with the general approach, but they argued that it was not feasible to expect Gatt principles to be introduced reliably or quickly. There would need to be at least one more MFA that was at least as strong as the existing one, they argued. The EC has not yet committed itself to how long the phase-out period should be: the industry seems to judge 15 years minimum.

On one thing, however, all participants were agreed: whatever system replaced the MFA would have to be the same the world over. Mr Andriessen attacked the US and Canadian proposals that the MFA should be replaced by a system of global quotas that would run for about 10 years.

He said that the starting point should be existing restrictions: introducing new restrictions would increase the protection for the domestic industry, would mean putting limits on some products and countries not covered by the MFA, would hurt developing countries, and would damage the credibility of the whole process of liberalisation.

The discussion on Friday took place against a background of increasing concern about the threat from eastern Europe. According to Mr Charlier, the economies of eastern Europe and the Soviet Union together had three times the textile capacity of the EC and, with far lower wages than in the west, posed a serious threat.

Politicians would have to make the difficult political choice of whether to open to east Europe or to Asia: to do both was not possible, he said.

The politicians present dismissed this view as unduly alarmist. According to Mr Renato Ruggiero, the Italian trade minister, it was a non-issue as the goods were of poor enough quality to pose little real competitive threat.

Mr Andriessen went as far as to present the opening to east Europe as an advantage. He said that the process of bring down barriers was being done very gradually and, moreover, opening to the west meant more demand for European textile companies.

Courtaulds in China paint deal

COURTAULDS, the UK chemicals concern, is to become the first foreign company to make paint in China, following an agreement with three local companies for a marine coatings plant in Shanghai, Peter Montagnon writes.

The venture, involving setting up a £2m plant producing 5,000 tonnes of paint a year, is believed to be the first investment in China by a UK company since last year's Tiananmen Square massacre.

Mr Derek Welch, Group General Manager of Courtaulds Coatings, says Western groups have preferred to license their technology for use by Chinese companies, rather than enter manufacturing agreements with Chinese partners.

Courtaulds, with a 51 per cent stake, has had permission to sell the output for hard currency in the Chinese home market. This rare privilege reflects the savings China will make on not having to import marine paint once the plant is operational. The deal took two years, and will ease repatriation of earnings. Main local partner is Kai Lin Paint Manufacturing Company with 29 per cent. China Ocean Shipping, and China State Shipbuilding Equipment and Material Co will split the remaining 20 per cent equally.

UK NEWS

Shell production in 1989 falls

Safety work set to knock North Sea oil output

By Steven Butler

SHELL UK yesterday forecast another difficult year for North Sea oil production owing to a large programme of offshore platform refurbishment and installation of safety equipment.

Shell said its 1989 UK production fell by 29 per cent to 245,000 barrels a day, compared to 1988, and that production this year was expected to be only marginally better. Shell and its joint venture partner Esso account for about one quarter of UK production.

Much of the down time is accounted for by the fitting of emergency shutdown valves, which were required by the government following the Piper Alpha oil platform disaster in which 167 men died. Shell is also proceeding with a platform refurbishment programme cosing hundreds of millions of pounds aimed at extending the life of older installations in the North Sea.

Mr Bob Reid, Shell UK chairman, said the complexity of the programmes made it difficult to forecast precise shutdown times. The Brent field would be operating at little better than half capacity for much of the year, and the Brent pipeline system was expected to be shut for between four to six weeks in the fourth quarter, when demand for oil is typically strong.

Mr Chris Fay, managing director of exploration and production, said Shell might have preferred to delay shutdown of the Brent line but was required by legislation to install the safety valves by the end of the year.

Other UK offshore operators are also planning a high volume of maintenance work this year.

The cut in output caused Shell's profits in oil production to fall by £45m to £195m in spite of a 25 per cent rise in sterling oil prices. For Shell UK as a whole after-tax profits rose from £285m to £363m, led by a recovery in oil marketing and refining from a loss of £38m to £96m in profits. The recovery was led by better refinery performance and lifted the return on capital employed to eight per cent.

Mr Roy Reynolds, managing director for marketing and refining said that Shell did not dispute the fairness of the £1m fine for Shell's oil spill in the Mersey last year. However, he called for all polluters to be treated equally regardless of ability to pay. Otherwise, he said, large companies would have an unfair burden that might cause them to withdraw from some industries where environmental incidents are a significant risk. This, he suggested, might leave the field to unresponsible companies which could not shoulder the burden of expensive clean-up operations, which in Shell's case cost £1.6m.

Shell expects its staff in marketing and refining to continue falling in the coming years from about 5,000 to 4,000. This part of the business employed over 10,000 in the early 80s.

Shell's capital expenditure last year came to £720m, up from £667 in 1988.

Images of the Great British Budget begin to fade

Peter Norman looks back at a unique national institution which may be entering its twilight years

IS THE Great British Budget in danger?

This might seem an odd question on a day when the Chancellor of the Exchequer's Budget speech will be virtually inescapable because of live televised coverage from the House of Commons.

But there are disturbing signs that the ballyhoo that has made the British Budget a unique national and international event is on the wane.

The Budget has traditionally provided a rare insight into the national psyche. The average Briton's love-hate relationship with the taxman has been acted out along well rehearsed lines, rather in the manner of a medieval mystery play.

The script has required the Chancellor to make various heart warming gestures as a preliminary to depriving or giving back to the British public some of its hard-earned cash. This year, despite or perhaps because of the likely absence of Budget give-aways, Mr John Major, the Chancellor, has failed to enter into the spirit of things.

Last weekend he broke with tradition by eschewing the opportunity to be photographed in a rustic setting in his constituency.

Even Mr Nigel Lawson, who was no friend of the frivolous, could be cajoled into wearing woolly and wellies for a game of ball with his children in the garden of his Leicestershire vicarage home. Sir Geoffrey Howe was once caught for posterity outside a country pub with a glass of beer in his hand and "Budget", his pet dog, on his lap.

Symptomatic of something amiss, Ladbrokes, the country's biggest bookie reported last week that nobody had placed any bets on the possible Budget outcome.

The annual political event that had come to highlight the great British virtue of facing adversity with good cheer is in danger this year of turning into a mega yawn.

IMAGES OF THE PAST: Budget Day for two former Chancellors, Sir Winston Churchill, 1925-29, in Whitehall and Mr Hugh Gaitskell, 1950-51, with Budget briefcase.

But the eclipse of the Budget is not all Mr Major's fault. After all, he and his senior officials have been locked away in pre-Budget purdah since the beginning of this year, devising the secrets that will be unveiled from the battered red wood and leather box that was used by Mr William Gladstone over a century ago.

The Treasury mantra that the Budget will be "prudent and cautious" has done little to whet the appetite.

The Budget this year has also had to compete with momentous events abroad, including the democratisation of eastern Europe, German unification and an English Test match victory in the West Indies.

There is also a sneaking suspicion that Mr Major will want, as far as possible, to adopt a low profile, on this the Chancellor's big day. The community charge, or poll tax, has put taxation in a more than usually unpleasant light. Mr Major is bound to suffer some fall out from Thursday's Mid-Staffordshire by-election, if it results in the widely forecast Conservative defeat.

But it may be that the Chancellor is merely a shrewd judge of the times in which we live. Other traditions come and go. Why should Budget Day be sacred?

In truth, historical trends have been undermining the status of the British Budget. When, in 1853, Gladstone claimed the record for the longest Budget speech, delivering 35,000 words in 4 hours 45 minutes, Britain was the workshop of the world and building an empire on which the sun never set.

Today, the UK is just one of several medium sized industrial *economies struggling to* make a living in a harsh, competitive world. The Budget itself is a mere shadow of its former self. It no longer details the Government's spending plans for the financial year starting in April – *that is* the job of the Chancellor's Autumn Statement, given to Parliament the previous November.

The direct influence that the Chancellor can have on the economy through tax changes pales into insignificance compared with the impact of interest rates on deregulated credit markets. In some recent months, the growth of bank and building society lending in Britain has been more than twice the £4bn "give-away" in Mr Lawson's radical 1988 Budget.

The obsessive Budget secrecy that pervades the Treasury from January onwards still generates some heat, particularly among journalists and in worthy organisations such as the Institute for Fiscal Studies.

But even this tradition has suffered at the hands of time. "Strategic" tax changes are often aired in advance in green paper form.

Suggestions have been made over the years for further reform of the Budget process, including a separate tax management act for the many uncontroversial and technical changes that jostle for attention each year with the Chancellor's main tax decisions and forecasts for the economy.

But advocates of such "open taxation" policies have made little progress.

When still in opposition in the late 1970s, Sir Geoffrey Howe, now the deputy Prime Minister, condemned the "fiscal *fait accompli*" of the Budget as leading to "confused and confusing" tax laws.

Today, Sir Geoffrey, who delivered the five Budgets of Mrs Thatcher's first term, takes a much more positive view of the process. "The option of surprise in the Budget can have a significant political signal effect," he says.

Looking back to his own first Budget in 1979, Sir Geoffrey recalls an event "of high drama. It's like producing a new play with all the combination of theatre and substance."

We will have to see this afternoon whether John Major rises to the occasion.

Manx fraud trial will be a legal milestone

By Sue Stuart

THE LONGEST and most important trial in Manx history is due to start today in the seaside village of Port Erin, on the Isle of Man.

Eight former directors, officials and agents of the collapsed Savings and Investment Bank jointly and separately face seven charges on 52 counts, including fraud and false accounting.

The bank crashed in June 1982, with about £42m in debts, depriving many depositors of their life savings.

On trial will be Mr Victor Gray, thought to have been the beneficial owner of the bank; Mr Robert Killin, former managing director; Mr John Cunningham, former manager; Mr Norman Ashton-Hill, solicitor and director of the bank; Mr Mark Moroney, advocate and director; and agents Mr Michael Crawe, Mr Dennis Finfer and Mr Joseph Grafham.

The trial is expected to last six to nine months and may cost the Isle of Man Government £10m. It is paying for the administration of the trial, the prosecution and legal aid for all defendants.

Many islanders feel the money would be better spent on compensation for the creditors. Others feel it is essential that the trial goes ahead to demonstrate the government's commitment to operating a well-regulated financial centre.

Mr Thomas Field-Fisher, QC, has been appointed acting deemster (judge) for the case, for which he will travel from England. Part of an hotel in Port Erin has been converted into a courtroom and into offices for the many barristers and solicitors acting those involved in the case.

The selection of a jury is likely to prove difficult and about 600 jury summonses have been sent out. In such a small community many will be eliminated by virtue of a prior relationship with the bank or the defendants.

Clothes exports rise only 2%

THE CLOTHING industry, which is struggling against a downturn in its domestic market, increased export sales only 2 per cent to £1.45bn last year, according to the British Knitting and Clothing Export Council, writes Alice Rawsthorn.

In recent years the UK clothing companies – which tend to sell abroad on the cachet of traditional British styles such as tailored tweeds and cashmere knitwear – have been able to rely on healthy export growth to counter the weakness of the home market.

But in 1989 the clothing companies were hit by volatile exchange rates in many major overseas markets. They managed significant increases in exports to some countries – such as Japan where sales rose 30 per cent to £82m – but suffered falls in other markets. As a result the overall level of exports was static.

The clothing industry, which is concentrated in inner city areas, has been hit by a spate of job losses and factory closures in recent months.

UK NEWS

GIAT competes with German, US and UK models

French launch late bid for British tank contract

By David White, Defence Correspondent

THE COMPETITION for the British Army's next tank developed into a four-cornered race yesterday with the news that France was entering a last-minute bid.

Vickers, the UK's sole remaining tank manufacturer, will now be pitting its new Challenger 2 against all the latest main battle tanks from Britain's Nato allies.

Its prime rival is the M1A2 version of the US Abrams tank, made by General Dynamics, but the West German Krauss-Maffei Leopard 2 is also a serious contender.

The Ministry of Defence said it had received an unsolicited approach from France's state land-systems concern Groupement Industriel des Armements Terrestres (GIAT), which is developing the Leclerc tank for the French Army.

Details of the French proposal were still being awaited. Officials said that the door was still open but that the French bid came very late in the day.

"They have to remember we have a time-scale. It's make-up-your-mind time in December," one official said.

A decision on the politically-charged issue of whether to buy another British tank to replace the ageing and unreliable Chieftain was put off late in 1988, when Vickers was given a £90m contract to demonstrate its Challenger 2. In the light of events in Eastern Europe, the number of tanks expected to be ordered has shrunk from the initial estimate of 650 to between 300 and 350.

Vickers is due to complete nine prototypes by the end of September, which will be evaluated against the other contenders.

The company said it expected fully to meet the conditions of the second of three "milestones" in its contract, which falls due at the end of this month. These conditions include the integration of Royal Ordnance's new Charm (Challenger Armament) gun, delivery of a prototype weapon system for testing and the start of live firing trials. Vickers is understood to have built five of the prototypes already.

Among the other contenders, opinion in the Army appears clearly to favour the Abrams, an option which Sir Peter Levene, the MoD's chief of defence procurement, is understood to have backed in 1988.

However, the Germans, who initially believed that the Leopard 2 stood little chance on political grounds of becoming the British Army's first post-war foreign tank, have been mounting a strong campaign.

The French tank was originally considered out of the running because of its state of development and doubts about its cost.

A prototype of the Leclerc is to be shown at the Satory arms exhibition outside Paris in June. The tank has an automatic loading system which allows it to function with a three-man rather than a four-man crew. The first production tank is due for delivery to the French army in December, 1991.

GIAT, which belongs to the armaments branch of the French Ministry of Defence, is being converted into an autonomous company with effect from July this year.

In Brief

Daiwa HQ in Europe planned for London

Daiwa Securities, one of the world's largest securities groups, has formed a joint venture with London & Edinburgh Trust, the British property company, to develop a new European headquarters in the City of London.

The venture marks another step in the Japanese penetration of the City of London property market and emphasises what Daiwa called "its long term commitment both to Europe as well as the City of London as its financial capital."

Perrier back on sale

Perrier mineral water will be back on sale in the UK on April 2, the company said yesterday.

Stocks were withdrawn in mid-February after traces of benzene, a cancer-linked chemical, were found in some bottles. The contamination was traced to a filtration fault at French production plant.

Error 'cost' £430,000

A clerical error cost Standard Chartered Bank £430,000, the High Court was told to yesterday.

Mr David Hunt, for Standard Chartered, said that the money was paid from the account of Mr Therlu Bangura, managing director of Sierra Leone Fishing Company, whose signature appeared on a cheque for £430,000 to Fimpex Trading.

The bank claims it is entitled to the money either from Mr Bangura, if the cheque is genuine - which Mr Bangura denies - or from Fimpex, with which Mr Bangura had business over shipments of cement.

Both defendants contest the claim.

Power officials warn ministers of failure to meet guidelines

Britain told power clean-up must go ahead

By Maurice Samuelson

THE electricity industry has warned UK ministers that Britain will fail to meet its obligations on combating acid rain pollution if it abandons a £2bn programme for cleaning up power stations.

The Department of Energy had been exploring whether it might not be cheaper to reduce sulphur emissions, a prime cause of acid rain, from the soon-to-be-privatised electricity industry simply by importing low-sulphur coal and using natural gas in power stations.

However, electricity officials have apparently persuaded the department that these measures would be insufficient to meet the international timetable for sulphur reductions and that at least £1.4bn must be spent on large-scale flue gas desulphurisation (FGD) equipment.

Under the original programme, announced two years ago, the Central Electricity Generating Board was to have fitted FGD to some 12,000 MW of coal-fired generating capacity, costing £2bn., or £350m for each 2,000MW power station, at present prices.

National Power, the CEGB's larger successor company, is installing FGD at the 4,000MW power station at Drax, North Yorkshire.

Now PowerGen, its sister company, says that it too needs to fit FGD in at least two 2,000MW stations. It has provisionally selected Ferrybridge and Ratcliffe on Soar, and has invited FGD equipment manufacturers to tender.

Report links disease with sea pollution

By John Hunt, Environment Correspondent

A WARNING that bathing in contaminated seawater is a direct cause of human disease is given by 20 of the world's leading marine scientists in a report published by the United Nations Environment Programme yesterday.

Professor Alasdair McIntyre of Aberdeen University, chairman of the group, which produced the report said: "We no longer accept the earlier view that there was no demonstrable causal link between human disease and bathing in contaminated seawater."

It warns of a serious deterioration of coastal areas, particularly as a result of the build up of tourist developments and industry on coastlines.

The report says "man's fingerprint is found everywhere in the oceans. Chemical contamination and litter can be observed from the poles to the tropics and from beaches to abyssal depths."

It says recent studies in the United States and Mediterranean have cast a new light on the relationship between swimming in seawater contaminated with raw sewage and disease among bathers. Prof McIntyre said the relationship was particularly strong in the case of children under five.

But the scientists believe the dangers of radioactive contamination have been exaggerated. Contamination from nuclear installations, weapons testing and the Chernobyl disaster have added to radioactive levels in seawater "but these additions have had insignificant effects on man and other organisms."

The report warns that the introduction of nutrients, chiefly nitrates and phosphates, is increasing and causing an increase in the plankton blooms that threaten marine life. These come mainly from agricultural run offs from the heavy use of fertilisers.

"The haphazard disposal of plastic material on land and from ships results in littering of beaches and seriously damages marine wildlife, particularly sea mammals, diving birds and reptiles."

The State of the Marine Environment, UNEP Regional Seas Reports and Studies No 115, Oceans and Coastal Areas Programme Activity Centre, UNEP, PO Box 30552, Nairobi, Kenya.

Lakes will suffer from acid rain 'for decades'

By John Hunt, Environment Correspondent

MANY lakes in Scandinavia and Scotland will suffer the effects of acid rain for decades to come even if there is a big reduction in sulphur dioxide emissions, according to a study by British, Norwegian and Swedish scientists.

The five-year study, involving 30 research groups, confirms that acid rain is caused mainly by emissions from coal-fired power stations.

The report of the Surface Water Acidification Programme (Swap) says that in some highly acidified lakes even the reduction of 60 per cent in sulphur dioxide emissions, as proposed by the EC by the year 2003, may not be enough to guarantee success in renewing fish stocks for several decades unless there is special treatment of the surrounding soil.

The report shows a decrease in the acidity of rain and snow as a result of reduced sulphur dioxide emissions over the past decade. This has been reflected in a slight decline in the acidity of some lakes.

The study shows that many lakes in Scotland and southern Scandinavia have undergone acidification for more than a century. It says fish, especially salmon and trout, cannot survive if the acidity remains above a critical level for long.

● Britain is heading for a battle with other EC member states on Thursday over a proposal from the Brussels Commission to reduce emissions of carbon dioxide, which is the main contributor to global warming – the greenhouse effect.

The Commission wants an agreed position to stabilise the amount of carbon dioxide in the atmosphere by the year 2000 and will put this proposal at this week's council of EC environment ministers. Mr Chris Patten, the UK Environment Secretary, will argue that such a target is premature.

Britain believes that it is better to await the Intergovernmental Panel on Climate Change. This will report this summer, giving its assessment of the threat of global warming and how the international community should react. Carbon dioxide comes from the burning of fossil fuels, mainly coal, oil and, to a lesser extent, gas.

Police unit to investigate UK 'war criminals'

Ivor Owen, Parliamentary Correspondent

A SPECIAL unit of London's Metropolitan Police would seek evidence in support of allegations that perpetrators of German war crimes committed at least 45 years ago are resident in Britain, Mr David Waddington, the Home Secretary, told the House of Commons.

He stressed that the unit, initially composed of nine police officers with appropriate supporting staff, would not commence operations until the War Crimes Bill had been approved by Parliament.

Mr Waddington rejected suggestions that the Government should follow the advice of Lord Shawcross, who as Attorney General was chief British prosecutor at the Nuremberg war crime trials, and not proceed with the measure.

The Home Secretary told Conservative MP Mr Ian Gow, who urged him to discuss the issue with Lord Shawcross, that at the end of the day it was the Government which had to make the very difficult decision to invite Parliament to pass the Bill.

Mr Roy Hattersley, the opposition Labour Party's deputy leader and shadow home secretary, announced that Labour MPs would have a free vote on the issue.

Mr Waddington gave an assurance that the procedures used by British courts either required no change in existing law or were consistent with steps already approved by Parliament.

Sainsbury increases pay to slow down retail staff turnover

By John Gapper, Labour Editor

J SAINSBURY, the supermarket chain, yesterday awarded its 60,000 retail staff pay increases of between 8.5 and 20 per cent in an effort to cut staff turnover. The pay award will cost the company 11 per cent in all.

The award is the biggest rise given by a multiple retailer in recent years, and indicates the stiff competition for staff within the industry. Check-out operators and craft workers such as bakers were given the biggest rises.

The pay award follows a job evaluation carried out by a management consultant, which the company hopes will protect it against equal pay claims from women check-out operators comparing their work to male manual workers.

It comes amid renewed pay pressure in other parts of the economy and may be regarded as a benchmark in the service sector. However, the company said it was a "one-off" that had few implications for other companies.

The pay of a check-out operator in the south-east rose from £121.34 to £138.89 for a 39-hour week, while that of a baker increased from £147.48 to £177.58 - a rise of 20.4 per cent. Office clerks received only an 8.5 per cent rise.

Staff turnover at the company has been running at up to 40 per cent in the past two years, and Sainsbury said it wanted to restore what it said was its traditional position of leading the pay league in retailing with Marks and Spencer.

Mr David Quarmby, joint managing director, said the award reflected the growing skill demands on staff such as check-out operators because of new technology and improvements in customer service.

He said Sainsbury hoped to recoup some of the cost of the award by reducing staff turnover. The award also includes improvements in holiday entitlement and increases in staff discounts for part-timers.

The job evaluation was timed to coincide with the company's annual pay review. A staff panel was consulted on how the 57 new job definitions produced by Hay Management Consultants would fit into the company's five staff grades.

It follows a ruling by an industrial tribunal last year that the job of a woman check-out operator at a south London Sainsbury store could be compared to a warehouse worker under equal pay for work of equal value law.

Usdaw, the distributive trades' union, said it was dropping the equal pay claim on behalf of the checkout operator. It welcomed Sainsbury's job evaluation and called on other retailers to follow.

The pay award follows substantial rises for young workers awarded by several big retailers last year.

FT LAW REPORTS

Shipowner not liable for trader's lost opportunity

THE BALEARES
Queen's Bench Division
(Commercial Court):
Mr Justice Webster:
March 14 1990

A TRADER who contracts to buy goods free on board a chartered vessel if loaded within a specified time, and to re-sell, cannot recover damages against the shipowners under the charter if, not knowing of the contracts and not foreseeing loss from late loading, they delay delivery of the vessel beyond her estimated time of arrival, so that in the meantime the goods have been sold to other buyers. And where the market price is pushed up by rumours of the ship's delay, any damages for loss to the trader of opportunity to buy foreseeable by the shipowners, knowing him to be a trader, would be nominal only, in that the cost of acquiring the cargo in the hyped market would be cancelled out by its rise in value.

Mr Justice Webster so held when allowing an appeal by Geogas SA, owner of the Baleares, from an arbitrators' award of damages to the charterer, Trammo Gas Ltd, in respect of loss resulting from the vessel's non-arrival in time for loading.

HIS LORDSHIP said that by a charterparty dated January 12 1987, Geogas as owner agreed with Trammo as charterer that the Baleares, or a suitable substitute in owners' option, should "with all convenient despatch proceed" to Bethioua, Algeria to load 30,000 tonnes of propane.

Under the charter the estimated time of arrival (eta) at Bethioua was January 31, with laydays beginning January 30 and cancelling February 5.

Trammo made the fixture for the purposes of a contract with Sonatrach, Algerian suppliers of propane, by which Trammo had agreed to buy 30,000 tonnes of propane f.o.b. Bethioua, to be lifted in January at $103 per tonne.

By that contract Sonatrach was not obliged to deliver the propane at that price unless Trammo presented a vessel at Bethioua capable of loading within January.

On January 20 Geogas telexed Trammo purporting to substitute Stena Oceanica for Baleares. It said the substitute would not be able to meet the cancelling date, and proposed a new laycan of February 10 to 15. Trammo protested. It told Geogas that late arrival would cause damage for which it would seek compensation.

On February 6 neither Baleares nor Stena Oceanica had arrived at Bethioua. Trammo cancelled the fixture.

Trammo had intended to use the Baleares cargo to supply various purchasers under contracts, some of which had been concluded before the Baleares fixture. It was obliged to settle claims totalling $2.05m for non-delivery under the on-sale contracts.

Geogas was ordered by arbitrators to pay Trammo $1.4m damages. Geogas now appealed. The question was whether, on the facts found by the arbitrators, Trammo was entitled to recover damages.

The arbitrators held that Geogas was in breach of charter in two respects: first, by giving an eta without reasonable grounds for believing it could be complied with; and second, by breach of implied obligation (the reasonable despatch obligation) to proceed so as to be reasonably certain of arriving at Bethioua on or about January 31.

Trammo claimed damages for loss caused by those two breaches under two alternative heads: for approximately $3m for loss of cargo which would have been delivered to it at Bethioua at $103 per tonne; or for loss of $820,075 profits on existing resale contracts, or $2.05m indemnity in respect of liability to on-sale purchasers.

The arbitrators rejected the first claim on the grounds that the loss of the January loading from Sonatrach was not caused by failure to give a reasonable eta or to proceed in time to meet the eta; and that even if the loss had been caused by such breach, it was too remote because Geogas had no knowledge of the existence of the contract between Trammo and Sonatrach. Geogas could not have foreseen the loss.

They also decided that Trammo had not made good its alternative claims, in that Geogas had no knowledge of the resale contracts and the claims were too remote.

Nonetheless, the arbitrators concluded that Trammo had suffered a loss which gave it a right to recover damages.

They found that between June 1985 when Trammo contracted with Sonatrach, and the beginning of February 1987, the market price of propane rose from $103 per tonne to $205 per tonne. The trading market was small and rumours of delays in shipment of the Baleares cargo pushed the market higher — a phenomenon known as "hype." As knowledge of probable delay became firmer Trammo's customers approached Sonatrach direct. When it became apparent that Baleares would be delayed into the second week of February, Sonatrach sold the cargo intended for Baleares to those purchasers at $205.

The arbitrators were satisfied that knowledge of the delay had a significant and independent effect on the market price, and that the delay into February was the cause of at least $50 per tonne of the rise in spot market prices in late January/early February.

They found that the increase attributable to hype constituted a loss suffered by Trammo. They said if it was caused by non-excusable delay, the only reason for denying recovery must be on grounds of remoteness. Geogas was the major trader in propane and knew as much about the small market as anybody.

They concluded that the $50 per tonne loss caused by hype resulted from Geogas's breach of charter and was not too remote, and provided the correct measure of damages for breach of contract.

Mr Goldsmith contended that the award was wrong on the ground, inter alia, that the loss in respect of which damages were awarded was a loss for which damages were irrecoverable at law.

The object of damages for breach of contract was to put the aggrieved party into the same position as he would have been in had the breach not occurred, taking into account such consequences of breach as should reasonably have been contemplated by the parties; but, in the absence of notice, not taking into account special facts such as Trammo's contract with Sonatrach or the resale contracts, of which Geogas had no knowledge.

The material facts were that the claim was for failure to load goods not yet acquired by Trammo, so far as Geogas knew.

The arbitrators found that Geogas knew Trammo was a trader as distinct from a consumer. So the relevant benefit which Trammo lost as a result of Geogas's breach was the right to be given the opportunity to acquire, by loading at the beginning of February, propane for resale or stock.

The relevant value was the net value of the opportunity. The net value would be the value of the cargo when acquired less cost of acquisition. Whether resold or kept in stock, the resale or stock value would, in the absence of special facts, be market price on day of acquisition and notional resale or retention.

Thus although the market price had risen by $50 per tonne as a result of Geogas's breach, so that it would have cost Trammo $50 per tonne more to buy the cargo, that extra cost would have been equally matched and cancelled by the rise in value. At best, therefore, Trammo was only entitled to nominal damages.

Mr Goldsmith for Geogas made one final, logically convincing point.

According to the arbitrators' findings there was no reason for Geogas to know it was necessary for Trammo to purchase the cargo. It simply knew Trammo was a trader.

In assessing the value of the benefit of the opportunity in those circumstances it was therefore necessary to take into account the fact that Trammo need not have purchased the cargo at all, and that if it had not done so it would have lost nothing.

The loss Trammo actually suffered resulted from the fact that it had to purchase the cargo in order to perform its contract with Sonatrach and its resales to receivers; but as the arbitrators found, Geogas knew of none of those facts.

The damages which the arbitrators awarded to Trammo were irrecoverable at law and the award must be set aside.

For Trammo: Peter Gross (Ince & Co)
For Geogas: Peter Goldsmith QC (Middleton Lewis Lawrence Graham)

Rachel Davies
Barrister

CONTRACTS

Building roads in Malawi

KIER INTERNATIONAL, part of Beazer National Construction, has started work on a £14m contract to build 80km of road in Malawi, central Africa. The road which links the major towns of Lilongwe and Salima is required by the Republic of Malawi Ministry of Works and is funded by the UKGovernment's Overseas Development Administration.

★★★

The New Zealand Government, represented by Works Consultancy Services, Wellington, has awarded a contract worth £12.8m to a joint venture partnership between HADEN YOUNG and TROLLOPE & COLLS (CITY). The contract is for the upgrading of the engineering services and refurbishment of "New Zealand House" in the Haymarket, London. The project is expected to be completed in June 1992.

★★★

WALLIS WESTERN, part of Beazer's regional construction division, has secured a £10.9m contract to design and construct an office village on the Southern Lakes area of the Aztec West Park, Bristol, for Arlington Business Park.

★★★

ROBERT WATSON & CO (CONSTRUCTION ENGINEERS) is to supply and erect structural steelwork for The Triangle, a nine-storey Docklands office building. The contract, valued at £1.48m, was placed by the management contractor, Alfred McAlpine.

Robert Watson is also involved in the propping of the perimeter sheet piling to be installed in the two-level basement.

Fabrication is already in progress, and erection begins in April with practical completion in September.

★★★

JOHN SISK AND SON has won a £5m contract to build an office complex behind the retained facade of a 19th century listed building. Work has started on a 4,144 sq metre construction which is being undertaken on behalf of Grosvenor Square Properties. The five-storey building, located on the Hammersmith Road, London, is due to be completed in March 1991. Existing windows and timber beams will be retained and overhauled wherever possible and the art deco shop fronts are to be removed, restored and refixed.

Philippines power supplies

DALE ELECTRIC OF GREAT BITAIN, a subsidiary of Dale Electric International, the UK power systems group, has signed an agreement in Manila to supply the National Power Corporation of the Philippines with diesel powered generating sets, including barge mounted power stations, worth £20.2m.

Dale has worked in close collaboration with C. Itoh, the Japanese trading company, to win the business.

The sets will be supplied as part of a multi-stage project and used to provide or strengthen electric power supply on up to 30 islands as part of the country's small islands electrification project.

Dale's agreement starts with a contract already signed for 78 generating sets, ancillary equipment, training and supervision. Other stages include orders for further 150 kW, 250kW and 500kW generating sets and "fast power" floating power stations of 2 MW each.

London Underground servicing project

For the first time ever, London Underground has awarded an escalator servicing contract to an outside company - OTIS ELEVATOR, the lift and escalator manufacturer and specialist maintenance company.

The three-year contract is for the maintenance, repair, cleaning and lubrication of a total of 30 escalators - located at the Heathrow and South Kensington stations and nine stations on the southern half of the Northern Line - and is effective immediately.

The agreement will strengthen the longstanding partnership between LUL and its main escalator supplier, Otis, and will enable both companies to share expertise, ideas and resources to increase the reliability of the 275 London Underground escalators, which are used by over 2.7m passengers every working day.

Apart from an initial installation servicing period carried out by the escalator installers, all maintenance work to date has been carried out by LUL staff.

Major Manchester Airport expansion

ALFRED McALPINE CONSTRUCTION has been awarded a £10m Phase 1 contract at Manchester Airport to construct the main taxiway and apron stand area for the new Terminal 2 complex.

The work involves construction of 128,500 sq metre of concrete aircraft pavement and all associated earthworks, surface water drainage and services.

The apron layout is planned to have two rows of aircraft stands, one either side of the central taxiway. Phase 1 stands will accomodate up to seven Boeing 747/400s, six MD11s and three A320s. Alternatively, each B747 stand can be used by two medium-sized aircraft. The contract is sheduled for completion in September 1991.

Conversion of Glasgow's Athenaeum

HENRY BOOT SCOTLAND has won a variety of contracts worth in excess of £20m. They include:- A £7.3m office conversion of one of Glasgow's major buildings, Sir J. J. Burnet's Athenaeum (1886). This is to be converted into offices for Grosvenor Buchanan Properties and Kelgrove Developments (Scotland).

The Grade 'A' listed facade of the former home of the Royal Scottish Academy of Music and Drama is to be preserved intact whilst the redeveloped interior will house 62,000 sq ft of lettable office accommodation.

A £7m office scheme at Tollcross, Edinburgh, which will provide office accommodation on six upper floors with retail space on ground floor for Ravenstone Securities.

A £2m two-storey residential unit and single-storey unit for day care provision of the elderly is to be constructed in Strathbungo for Strathclyde Regional Council.

Henry Boot is to undertake the refurbishment of four tenement blocks in Garthamlock, Glasgow, for Glasgow District Council and a £1.4m design and build contract at Stracathro is being undertaken for the Scottish Development Department.

An architect's impression of three neo-gothic office blocks at Sowton industrial estate, Exeter, being built by E. THOMAS CONSTRUCTION, a division of Mowlem Regional Construction, for Lansdowne Real Estate under a £3.8m contract. The two-storey blocks will provide 80,000 sq ft floor space. Work starts this month for completion in February 1991. Thomas has won other orders in the West Country totalling almost £10m.

David Fishlock asks whether Genentech will lose independence after Roche's impending purchase

The right mix of pharmaceuticals

Genentech pioneered the idea of the new biotechnology firm. In 1977 it sought to exploit genetic engineering – using micro-organisms to make complex biological substances – despite academic insistence that not enough research had been carried out. Its efforts inspired hundreds of competitors during the 1980s, but Genentech held on to its technical lead.

Next month Hoffmann-La Roche, the Swiss chemicals group, hopes to acquire 60 per cent of Genentech for $2.1bn (£1.3). With sales of $400m last year, Genentech is the world's biggest biotechnology group in terms of revenues. But is this the end of Genentech as we know it?

Roche, which employs more than 47,000 people, had sales in 1988 of £4bn, 40 per cent from pharmaceuticals and the balance spread among vitamins, flavours, fine chemicals and diagnostics. Other promising new biotechnology firms which ran short of cash found themselves swallowed by multinationals, among them Hybritech, acquired by Eli Lilley, and more recently Gen-Probe, acquired by Chugai.

Roche did not set out to acquire Genentech, stresses Professor Jürgen Drews, board member responsible for Roche's research and development. As chairman of the research board, he says the purchase was not part of Roche's research policy. Roche has placed research contracts with several other biotechnology companies.

It was Genentech that approached Roche, seeking financial capital to fund new developments. It also wanted assurance that Roche would not restructure the business. Genentech's way of life – a remarkable degree of scientific freedom – has brought four important genetically engineered drugs to the market, including Activase, a clot-dissolving drug for treating heart attacks. Drews sees the discoveries as an amazing achievement for a small start-up in a big league.

He says Genentech was aware of Roche's corporate policy for exploiting biotechnology. Roche's research into the genetic engineering of colony stimulating factors, chemical agents in the body, could lead to two powerful new drugs for regulating the body's immune system, in addition to Roferon-A, another of these natural substances. Roche believes it can genetically engineer antibiotics to improve their efficiency and overcome problems of drug resistance developing in the infective agent.

Fritz Gerber, Roche's chairman, was first approached last October by Robert Swanson, Genentech's founder. Gerber despatched Drews to California to investigate Genentech's science. Drews says he found "a good pipeline of new products." He admits that as recently as five years ago he did not believe the new biotechnologies would yield new pharmaceutical products. He thought they would be simply part of the process by which drugs were developed.

Drews now believes that the new biotechnologies have already yielded 50-100 potential new drugs worldwide, "and Genentech does seem to play a dominant role in this game." One of its directors, Herbert Boyer, shared a Nobel Prize for inventing genetic engineering. "It has a fantastic group of people," Drews says. "They really understand molecular biology and they can communicate."

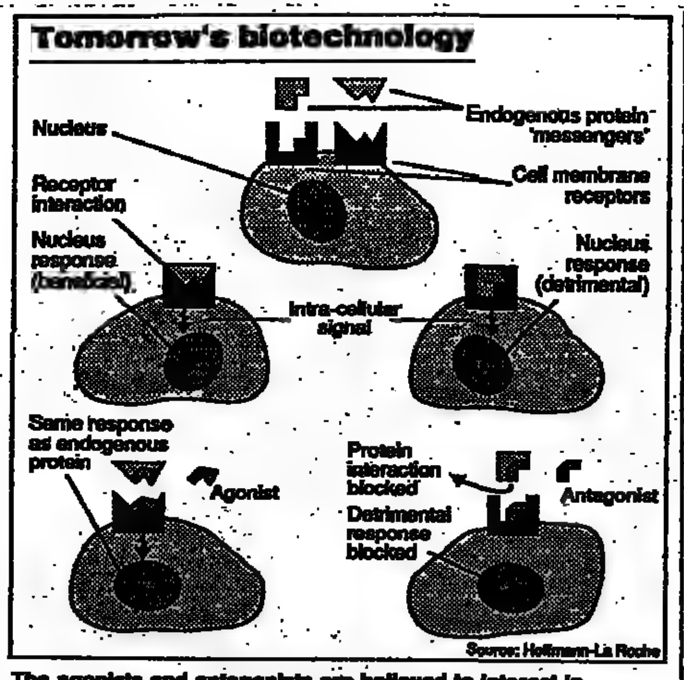
Working for Genentech as a scientist or a clinician "means the same as being a member of a famous medical school." Drews, who left Sandoz in Basle five years ago because be believed it was taking too short-term a view of research and development, believes Wall Street has undervalued what Genentech has achieved with biotechnology.

Armin Kessler, Roche's newly appointed chief operating officer, believes a factor which drew Genentech to Roche was its scientific institutes and their independence. About 20 years ago, when Roche was flush with profits from its tranquiliser discoveries, it ploughed money into two institutes devoted to basic biological sciences.

"Genentech has a fantastic group of people. They really understand molecular biology and they can communicate" — **Jürgen Drews**

The first, launched in 1968, was the Roche Institute of Molecular Biology in Nutley, New Jersey. Then in 1971 it opened the Roche Institute of Immunology in Basle. It was an investment in the belief that this must eventually pay off for medicine, says Drews.

Tomorrow's biotechnology



Source: Hoffmann-La Roche

The agonists and antagonists are believed to interact in cells to reduce or eliminate pathological effects of a protein

Each has managed to attract some of the world's leading academics in the basic biological sciences. One reason for this, says Drews, "is they have more freedom than academics." The Basle institute is trying to understand, at the molecular level, immune reactions regulating the proliferation and differentiation of cells of the body's immune system. Its scientists are not Roche employees but recruited as institute "members" – about 50 of them – purely for their scientific ideas.

The ideas they pursue are backed or rejected by peer review within the institute, without reference to any company requirement. The budget – SFr40m (£16m) in Basle – is independent of Roche's R&D budget. Most members stay for only a few years and then return to academe. But a few – such as Michael Steinmetz, Drews's head of molecular biology – develop a taste for industrial R&D.

Not everyone at Roche appreciates the work of the institutes, says Kessler, a chemical engineer who until recently was running Roche's pharmaceuticals business. But Kessler is convinced the institutes attract a valuable type of scientist the company would never otherwise attract. He points to John Stocker, a member who returned to Australia and became director of its Commonwealth Scientific and Industrial Research Organisation.

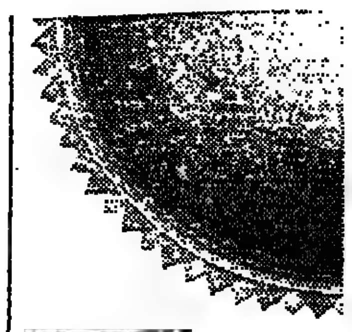
Kessler believes that two factors in particular drew Genentech to Roche as a potentially sympathetic patron of its independent way of working: its research institutes and its highly decentralised management system.

Roche, which set up its first research laboratory in Basle in 1913, is a company where very different research cultures can flourish, says Drews. He cites the quite different management styles practised by its four main research centres in Basle, Nutley, England and Japan.

In Genentech he found "a very delicate mixture of abilities." He believes that a hostile takeover would simply put them to flight.

But will Genentech remain independent? Kessler says he is convinced that independence is the secret of its productivity in drug innovation. He believes the future of pharmaceuticals lies with chemicals that are orally active (can be taken by mouth). Biotechnology was once seen as good only for complex chemicals that had to be injected, like vaccines. But biotechnology's latest techniques are honing down the molecule to the part with the biological action.

Where he believes Roche will expect Genentech to conform with corporate policy is in launching new drugs. If Genentech continues to grow at the rate of the past decade it will rival its parent in the next decade. "And that will be a lovely problem to have," says Kessler.



WORTH WATCHING
Lynton McLain

Spot the crack by remote control

CRACKS in industrial plant and structures on the other side of the world can be detected and located using acoustic emission and telemetry techniques developed by Fulmer Research, the commercial research company of the Institute of Physics.

The technique enables the integrity of a steel pressure vessel in a chemical or nuclear plant, however remote, to be monitored from the Fulmer laboratory in Berkshire, England.

Transducers and filters identify the acoustic emissions produced by high velocity microfractures when stress, corrosion or fatigue cracks occur in welded joints.

Up to eight transducers on a structure feed signals constantly to an on-site analyser. This stores data at the appropriate frequencies.

The analyser memory is interrogated remotely by telephone/modem, approximately once a week and data transferred to the laboratory for analysis. The data shows the state and location of any developing crack, enabling remedial action to be taken before the crack becomes critical.

Train conductor's magnetic power

JAPAN'S first underground railway system powered by superconducting magnets will go into service in Osaka today, writes Della Bradshaw.

The train is powered by a linear electric motor. The superconducting magnets and electric coils are positioned on the train and repel it over a metal bar running down the centre of the track.

The train will travel between Osaka's Kyobashi Station on the city's urban loop, or circle line, and the site of the International Garden and Greenery Expo, which opens on April 1.

The journey of 5.2 kilometres will take nine minutes, including stops at three stations on route.

Study into a very fishy business

SURVIVAL rates for fish eggs may be indicative of global warming. Fish eggs are extremely sensitive to temperature, and with only a fraction of the thousands of a species' eggs surviving under existing conditions scientists are concerned about the possible impact of global warming on survival rates.

The Natural Environment Research Council (NERC), the Dunstaffnage Marine Laboratory at Oban, Scotland and the Inter-Universities Marine Research Institute of Dundee, St Andrews and Stirling, have started a joint study to see how warming might affect survival rates.

Fish are an important part of the food chain and a growth or depletion of fish stocks could have serious implications for the whole marine ecosystem, as well as affecting one of man's main sources of food.

Colour as a communicator

COLOURED pictures may be preferable to words in the black and white world of computers, especially where the subject is wild flowers, or anything else that would benefit from being displayed as a picture.

Richard Pankhurst, of the Botany Department of the Natural History Museum in London, has developed a colour program for any IBM compatible personal computer.

Pankhurst's program will help to identify biological organisms, with coloured pictures as an alternative to words. The program has a table of all biological categories under consideration and their component parts, or characters.

The program presents a menu of the character states, for example whether the edge of a leaf is smooth or rough, as monochrome or coloured drawings, or in words.

Composites' test of strength

ULTRA-high performance PBZ polymers are starting to be produced from the first demonstration plant in Menlo Park, California.

Tensile strengths and stiffnesses of PBZ (polybenzobisoxazole) are higher than for other polymers, higher than steel and other metals and comparable with carbon fibres, according to Commtech, the technology development partnership at Menlo Park, California which owns the patents covering PBZ technology.

PBZ was developed after 10 years of research sponsored by the US Air Force at SRI International at Menlo Park. Possible uses of the polymers, with resins, include the production of new composites.

Ship sails its own course

The US is attempting to leapfrog over the Japanese in the development of superconductor magnetohydrodynamics (MHD), which, with no moving parts, can power ships.

A full-scale superconductor MHD power unit is to be built and tested at the US Argonne National Laboratory in Illinois. The Japanese Foundation for Shipbuilding Advancement intends to have a prototype MHD powered ship sailing this year. Argonne believes the prototype will be a small ship, with only small-scale power units.

MHD eliminates all moving parts of the drive system, including propellers and motors. The superconducting magnet – which has almost no electrical resistance – exerts a powerful magnetic force on sea water passing through a duct in the magnet. The resulting electromagnetic force drives the water out of the stern, creating forward motion.

Argonne is to use an existing $12m, 13-feet diameter, 21-feet long dipole superconducting magnet, built for earlier research. This will be coupled to a 4-feet diameter, 60-feet long water loop.

Contacts: Fulmer Research: UK, 0753 662181. Japan Association for the International Garden and Greenery Expo: Japan, 06 938 5505. Dunstaffnage Marine Laboratory: UK, 0631 62244. Natural History Museum: UK, 01 938 9123. Commtech International: US, 415 326 9160. Argonne National Laboratory: US, 312 972 3000.

Views of the literary and intimate portrait

William Packer on the work of photographer Julia Margaret Cameron and painter Avigdor Arikha

Julia Margaret Cameron is the most widely celebrated and accessible of the great Victorian photographers. She does not stand especially high as one of the great technical pioneers, nor was she the first to offer up through the new-fangled medium a picture and record of the Victorian world – at once so strange to our eyes, and so familiar.

But she was the first and remains, perhaps, the greatest of the art photographers, who saw themselves as something rather more than scientists, technicians and reporters. As a soi-disant artist seeking to exploit the full expressive potential of photography, Mrs Cameron was conspicuous among those who consciously aspired to achieve and even surpass in their work the condition of painting, which some already considered redundant by the very invention of the medium.

But, for all its obvious aspirations, Mrs Cameron's particular achievement has for the most part been considered only within the context and conventions of early photography. She was the very type of the well-off amateur of her time – serious, industrious, ambitious, high-minded, encouraged by her family and circle of friends, whom she regularly dragooned into service as her models. The arty-literary Cameron set, with Tennyson its presiding genius, is well documented, but rather more as social and cultural phenomenon than creative stimulus.

Now *Whisper of the Muse* at Colnaghi, a fascinating loan exhibition in which The Royal Photographic Society has collaborated (14 Old Bond Street W1: until April 12), goes a long way towards correcting the emphasis. The determining principle has been to show her work in the light of its pictorial and literary sources, not as mere general charade and tableau but as particular reference.

It is in this respect that the aura of gentle and sometimes faintly indicrous over-statement and sentimentality, with all the dressing up and posing in flowing robes and suits of armour that for so long has characterised all but her most straight-forward portraits, rather falls away. Instead of the mildly eccentric and indulged matron, suddenly we see her as a central and significant figure of the romantic symbolism of the later 19th century, a late pre-Raphaelite consciously deriving pose and composition, here from engravings after the Italian masters or after Rembrandt, there from Reynolds' Mrs Siddons as the Tragic Muse.

As to her contemporaries, we find her working in direct relation to Millais, Rossetti, Leighton, Holman Hunt and G.F.Watts, but not at all as acolyte, rather developing and extending their ideas through the transforming lens of her own pictorial medium and imagination. Their portraits are all but exactly alike, and yet for us, at this distance, she it is rather than Watts who has now fixed in our minds the definitive images of Carlyle and Tennyson. And if she should still seem resolutely literary in her pictorial quality, we should remember the circle in which she moved, and that symbolism itself is essentially a literary and indeed poetical movement. She died in 1879, just too soon to know of Whistler at his most radical, or the young Sickert, or to be influenced by the Japanese taste, or to respond at all to the currency of French experiment in painting, from Degas to Monet. Who knows what course she might have taken, for she was artist enough.

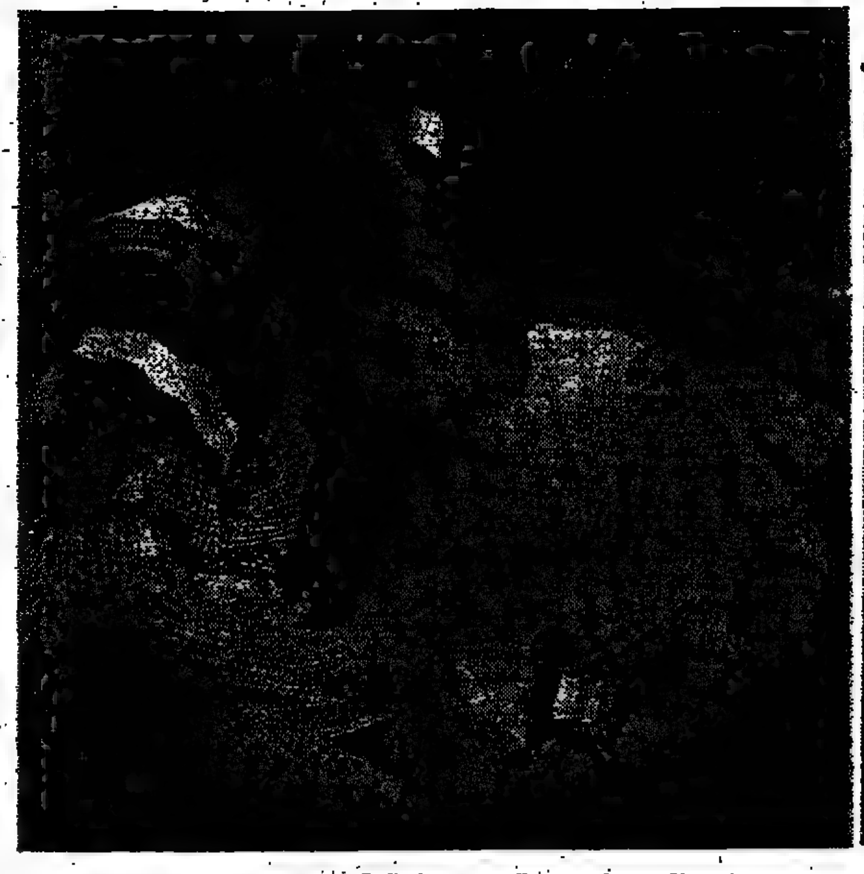
*

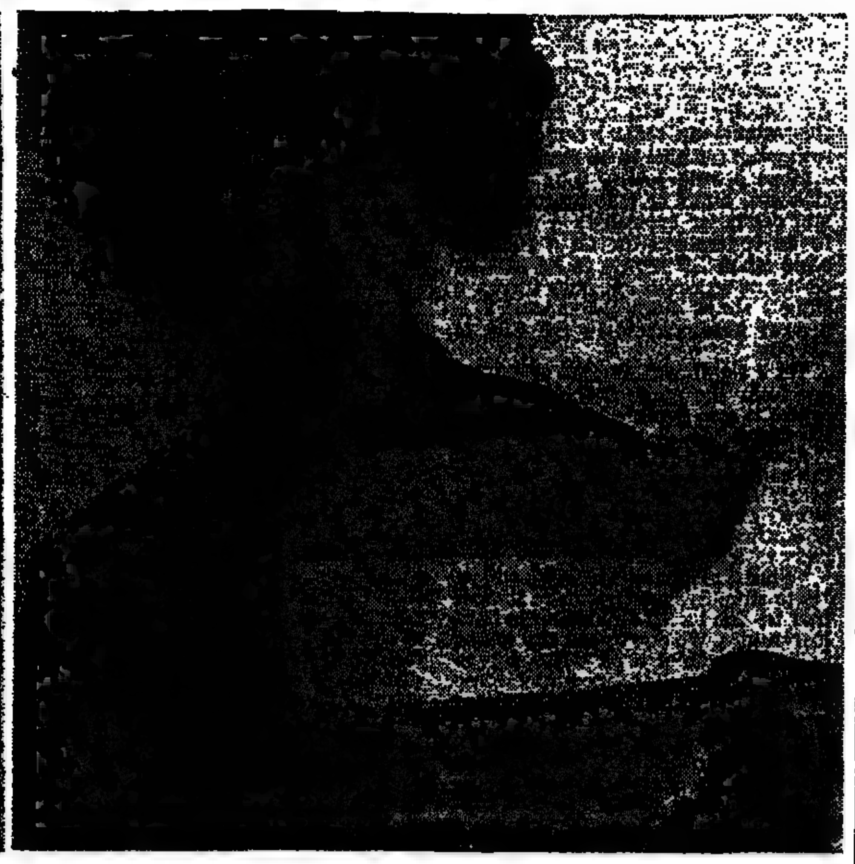
A hundred years on or so, and we have at the Marlborough a show of recent paintings and a selection of drawings by the Israeli painter, Avigdor Arikha (6 Albemarle Street W1: until April 14). Without pressing the comparison too far, Arikha is, like Mrs Cameron, an artist both isolated and conventional, at times both set below and above his true standing. He is a good if unexceptional painter, a delicate and sensitive observer of still-life and the figure, less sure with the nude but at his very best with the intimate portrait. And yet at 61 he has achieved an international eminence as a painter of the directly observed image second only to that of Lucien Freud, and perhaps more extensive.

I say unexceptional advisedly, not in any sense to put him down but only to make the point that he has many peers in his generation, in this country at least, but who for all sorts of reasons are unlikely ever to attain his celebrity – Greenham, Blamey, Uglow, Symons, Blackadder, George, Tindle, as just a few names at random. It all comes down to critical support and circumstance, and keeping your nerve. Where Arikha has had the luck, in dividing his time largely between Jerusalem and New York, has been in being a big fish from a comparatively small pool and different enough, through the long periods of avant-garde indulgence, to be noticed. In London he might merely have been respected.

That said, his particular qualities as painter and draughtsman must be admitted. His touch is light, the paint thin and loose and feathered across the surface, qualities matched in the drawings by a soft, scurrying line. There are times, perhaps, when the images are a shade too graphic and self-conscious in arrangement, cropped dramatically and artificially. But even so they are always saved by the working of the paint and the integral interest of the image. The best of the still-lifes are always small and set up with the utmost simplicity, objects presented matter-of-fact: a parcel, a sweet-corn, a bag of potatoes, a bunch of grapes.

He is the natural intimiste, his strength his direct, natural and apparently swift response to immediate detail and incident, and the long-known presence of friend and family. With the paintings of the nude, which tend to be larger and more obviously ambitious, these qualities are lost and awkwardnesses creep in, the model gawky and often awkward in the pose, the handling more mannered and self-conscious. It is the small, fresh study of Anne, his wife, reading a letter, that in its quiet and undemonstrative way is the masterpiece.





"The Parting of Lancelot and Guinevere," 1874, by Julia Margaret Cameron; and "The Letter," 1989, by Avigdor Arikha

A weekend of 20th century music

The BBC Symphony Orchestra's Festival Hall programme on Friday (also broadcast on Radio 3) spanned the full width of British music in the 20th century, from Elgar's Second Symphony to a new piece by Birtwistle, with Hugh Wood's *Scenes from Comus* lodged somewhere in between.

It was fascinating to hear Wood's Milton study from 1965 again, to relish its passionate discourse and highly charged vocal writing (how close to late Tippett are some of its sounds!) and to be reminded that that the neo-romanticism of his recent works is no modish trend, but a fundamental thread in his development that has always coexisted with a Schoenbergian sense of discipline.

Andrew Davis is increasingly impressive in such works; the tumultuous dance section (with the BBC Symphony at its most alert) provided the work's point of emotional release, while the soloists (Alison Hagley and Howard Haskin) were always enclosed in webs of intriguing textures.

The Birtwistle was *Machaut a ma manière*, a 10-minute piece completed in 1988 and receiving its first British performance, which expands his long-standing fascination with Machaut's *Hoquetus David* to orchestral proportions. The arrangements of the double hocket he has made in the past come full circle here and the latest is preceded by a similar treatment of the motet *O livoris feritas* to create a strangely jointed piece, identifiably Birtwistle growls), but lacking a true centre.

He has likened it to Picasso's reworkings of Delacroix and Velasquez, seizing upon details of the original to project into a new space and perspective, yet it does not seem to be a Stravinskyan re-creation, but rather a close stylistic homage. There is perhaps more of Machaut than of any other composer buried beneath the surface of Birtwistle's technique, and for that reason little tension between "old" and "new" here; instead a journey across familiar territory in the company of musical material that seems quite to belong.

Andrew Clements

In the Queen Elizabeth Hall on Friday, Oliver Knussen conducted the London Sinfonietta in his own Second Symphony, three other past works by current present composers, and Mark-Anthony Turnage's recent *On All Fours*. Like many another Turnage piece, *On All Fours* is peculiarly disquieting, even baleful: not truculent, this time, but and certainly subversive. Its main movements, separated by refrains, mimic the dances of an 18th-century suite – Allemande, Gigue, Sarabande – but in distended and fractured metres and with mournful melodic lines delivered in agonising hyper-vibrato by 'cello or flugelhorn. Extremely interesting; deeply unfriendly.

Jonathan Lloyd's early *Cantique* displayed his "fascination with purely orchestral sounds" (vividly realised here), some of them almost in free-fall. Alexander Goehr's *Sinfonia* of 1980 is one of those works where he sought, after a long devotion to serialism, to reinstate quasi-tonal harmony and quasi-classical manners. Often reminiscent of the wind-heavy rawness cultivated by pre- and post-war German socialists, it gives the impression that assigning any particular musical line to a particular instrument has been a matter of arbitrary decision – but determined not to flatter anybody.

Knussen's Symphony and George Benjamin's 1981 *A Mind of Winter* are familiar and admired, but here they served above all to introduce a fascinating young American soprano. The voice is true and appealing, used with clean intelligence; though not large, it is much larger than you would guess from Lisa Saffer's very *petite* person and it seems to reach sweetly into the stratosphere without any upper limit. The prospect of hearing her at the ENO in Berg's *Lulu* is full of promise.

David Murray

Also on Friday it was the turn of Krzysztof Penderecki to conduct a concert of his own music at the Barbican. The composer is one of the two artistic directors of the Cracow Philharmonic and the opportunity is being taken on the orchestra's tour to present the Polish musicians in new music from their own country.

The main work on the programme was Penderecki's Second Symphony, which dates from 1980. It is a short and consistent piece, written in the neo-romantic idiom with which the composer was experimenting at that time. In fact the score offers little sign that he had anything original to say in this 19th-century language and contents itself with reproducing a mood of brooding romanticism. That it holds the listener to the end is thanks to its successful use of grand gestures taken from the romantic symphony writer's handbook, especially the chapters on Bruckner and Mahler.

Within a few years Penderecki had moved on. The Viola Concerto of 1983 leaves the security of a tried and tested musical style and experiments with a variety of effects, to less predictable results.

As an integral work, the concerto hangs together far less well. But from time to time it hits upon combinations of instrumental timbres that seem to wander into the strange and refined sound-world of a Bartók. The many cadenzas make the concerto a grateful piece for the soloist, who was here the expressive Grigory Zhyslin.

Finally, the Passacaglia of 1988 takes the story one chapter further: a barren selection of musical ideas, which are skilfully worked into a more colourful piece than one would initially have thought possible. It seems Penderecki is moving back into the central stream of post-war European music, a journey on which the accomplished Cracow players will no doubt give him every support.

Richard Fairman

Kenneth Greve and Jacob Sparso: King Arthur and Merlin

Camelot

CIRQUE ROYAL, BRUSSELS

The Royal Ballet of Flanders is celebrating its 20th birthday by staging a new evening-long spectacle, *Camelot*. The plot is based on Arthurian legend as found in Sir Thomas Malory; the choreography is by Stuart Sebastian, artistic director of the Dayton Ballet in Ohio. The location for Friday's first performance was Brussels' Cirque Royal, whose large stage juts into a horse-shoe auditorium: it has been a favoured locale for Béjart performances. The designers Roger Bernard and Joelle Roustan have provided an effective black setting of gigantic doors on an inner stage which leads down to the dance area, equally inky, against whose darkness the costumes – simple, well-designed – and the action are clearly placed. The score is skilfully chosen from Sibelius's first symphony and various of his tone poems.

Sebastian's theme, in essence that of the *Morte d'Arthur*, is stated in the opening moment which sees the King surrounded by those agents – Guinevere, Lancelot, Viviane, Merlin, Mordred, Morgan le Fay – who will bring about his death. A first act tells of Arthur's triumphs, winning Guinevere, uniting his kingdom, sustained by Excalibur's power. The second offers the reverse of this heroic tale, with every good element turned to evil. It is the fascination of this contrast which holds such hopes for the evening, hopes which, alas, Sebastian only partially realises.

In recounting the legend (and because of the Sibelius music I was reminded of David Bintley's success in exploring bardic narrative in his *Swan of Tuonela*) Sebastian has opted for an academic language of considerable innocence. In other circumstances – in a short plotless work – such directness of style could bring rewards. But as a narrative means, class-room steps leave much to be desired. So Arthur and his knights dash about offering classical predictabilities to each other, valour equated with technical prowess. The court ladies trip and tittup like automata, and love and passion have a nicely sanitised air. This is romance reduced to the level of an animated cartoon, dance according to Disney, and step-for-note ingenuities do not accord well with the tragedy of the once and future king. Outlines of character and action have been neatly drawn, but colouring is rudimentary, the palette limited. And the elements of comedy – a diminutive knight as clown; gossiping court ladies – have a searing cuteness: Disney would probably have used chipmunks.

Had the role of Arthur been taken by a dance actor of communicative power (it calls for a Jean Guizerix or a Mukhamedov) then the drama might have seemed more urgent. The young Danish dancer Kenneth Greve is tall, blonde, handsome, and his technique is sure, but his reading is as yet too passive, too decorous. Things keep on happening to him without firing any response: even his love for Guinevere, the graceful Bernice Coppieters, is pallid. In matter of feeling it is the Mordred of Matthew Madsen and Jacob Sparso's Merlin who raise the emotional temperature, as do the two villainesses (an over-egged pudding when we remember Guinevere's misdemeanours, too) well taken by Dawn Fay as Morgan and Laura Radda as Viviane. Amid an expanse of choreographic politeness the scene in which Viviane destroys Merlin's power stands out by its energy as the enchantress enslaves and blinds the magician, and Sebastian gets to grips with the tensions of his tale.

The Flanders dancers work hard and well; the troupe looks polished, secure. The disappointment about this 20th anniversary is that they should be performing in what is more vacuum than vehicle.

Clement Crisp

Fanferlizzy Sunnyfeet

WATERMAN'S ARTS CENTRE, BRENTFORD

Kurt Schwertsik, like H.K. Gruber, is a Viennese composer (born 1935) who was reared on the techniques of post-war modernism (he studied with Stockhausen in Darmstadt and Cologne) only to throw them overboard at an early date. The personal style with which he replaced them is tonal, light-boned, whimsical and wry. In many of his pieces he seems able, again like Gruber, to move between the world of Bach's Brandenburg Concertos and that of cabaret with the greatest ease.

One's first impression of his second opera, *Das Märchen von Fanferlieschen Schönefüsschen* or "The Wondrous Tale of Fanferlizzy Sunnyfeet" (1983), given its British première at the Waterman's Arts Centre last week by the Trinity College of Music's music-theatre ensemble, A Moveable Feast, was that it is a musical joke. Its ten little scenes (in two acts totalling 80 minutes) are scored in witty parodic style and set off by chirpy instrumental miniatures such as the "Kleine Overture," 39 bars long, and the "Fanfare" for the first act's bizarre royal nuptials. But the jaunty note of pop and cabaret is deceptive: the score is disarmingly idiosyncratic, stiffened by a compositional technique well aware of Stravinsky and Weill, not to mention Stockhausen and Bach.

The opera, originally conceived for audiences of children, is based on a fairy-tale by Brentano; the librettists Karin and Thomas Körner have transformed its diction into a racy modern doggerel, English equivalents for which have been sought and found by David Drew in collaboration with the composer himself. It is a thoroughly earthy affair, obscene, violent, ludicrous and surreal, evincing a species of Viennese irony that owes nothing to refinement.

The action is difficult to summarise and was difficult to follow in detail. A vague parable of good versus evil is used as the merest excuse for a great deal of pantomimic cavorting by characters with such morally transparent names as Throttlepumpa (Heather Shipp), Miss Go-To-Wed (Giselle Minns) and Allingoodtime, her instantly full-grown offspring (Andrew Neil Walters). In this production by Rhonda Kess – who also conducted the oddly composed ensemble of three flutes, bass clarinet, three trumpets, tuba, piano, percussion, one violin, four cellos and a double bass – floosies and wide boys mixed with an assortment of grotesques (Debbie Gordon's good witch, Fanferlizzy; Mark Williams's hunchback, Pumpeleiro) in a creeping, seething, shuffling and tumbling choreography which reminded me both of recent stagings of Prokofiev's *Love For Three Oranges* and Terry Gilliam's animations for *Monty Python's Flying Circus*.

On this occasion Schwertsik's opera was supplied with a frame: the action actually took place in a 1920's speakeasy. Dance music not written into the score (but sounding as if composed by Schwertsik anyway) was interpolated at various places, notably at the curtain-call, which was therefore somewhat protracted. The limited resources available for a student production were impressively exploited; and the brief evening was every bit as lively as it was baffling.

Paul Driver

ARTS GUIDE

March 16-22

OPERA AND BALLET

London

Royal Opera, Covent Garden: Luciano Pavarotti returns to Covent Garden in the John Copley production of *L'elisir d'amore*, conducted by Marcello Panni, with Daniela Mazzucato, Rolando Panerai and Ingvar Wixell. Also in repertory: the new production of Strauss's *Elektra* and final performances of *Otello*.

English National Opera, Coliseum. David Pountney's witty, sharp-edged production of Prokofiev's *The Gambler* is revived with Graham Clark once again in the leading role. Also in repertory: Pountney's polemical (and problematic) *Traviata* production.

Paris

Théâtre des Champs Elysées. Borodine's *Le Prince Igor* in a new production by Warsaw's Teatr Wielki (47203637).

Opéra Comique. Mozart's *Idomeneo* performed by the Orchestra d'Auvergne conducted by Jean-Jacques Kantorow (42600499).

Paris Opera. Bejart and the Lausanne Ballet bring *Autour du Ring* created by Béjart to Wagner's music, to the Palais Garnier (47425371).

Brussels

Cirque Royal. The Royal Flanders Ballet in *Camelot* choreographed by Stuart Sebastian.

Milan

Teatro Alla Scala. Riccardo Muti conducts Mozart's *La Clemenza di Tito*, with Ann Murray, Cheryl Studer, Gösta Winbergh and Susanne Mentzer and Wolfgang Sawallisch conducts Wagner's *Die Meistersinger*, sung in German, with a fine cast, but fussy production by Nikolaus Lehnhoff (80.91.26).

Rome

Teatro dell'Opera. The theatre is back on form after a series of strikes, with Massenet's *Werther*. (46.17.55).

Teatro Brancaccio. Elisabetta Terabust dancing in two works by Roland Petit, joined by some of the best performers in Italian ballet and modern dance, in a fund-raising performance in support of the Teatro dell'Opera's ballet school, of which she is the new director (732304).

Parma

Teatro Regio. Claude d'Anna's production of Verdi's *Ernani* conducted by Hubert Soudant. (795678).

Venice

Teatro la Fenice. Luca Ronconi's production of Mozart's *Cosi fan tutte*. (5210161).

Madrid

Renata Scotto (soprano) – arias and songs. Teatro Lirico Nacional la Zarzuela (429 82 25).

Berlin

Opera. *Der Rosenkavalier* returns with a new cast led by Gundula Janowitz, Gwendolyn Bradley, Lenus Carlson, Ute Walter, Guenter von Kannen and John Sandor. Mara Zampieri repeats her much praised performance in the title role in *Das Mädchen aus dem goldenen Westen*. Stravinsky's *Der Feuervogel/Agnon/Le Sacré du Printemps*, jointly choreographed by George Balanchine and Maurice Béjart will have their premiere this week. *Madame Butterfly* convinces thanks to Yoko Watanabe, brilliant in the title role. *Die Sache Makropulos* is sung by Karan Armstrong, Daniela Bechly, Maria Jose Brilland, Jan Blinkhof, conducted by Jiri Kout.

Hamburg

Opera. *Matthäus-Passion*, danced to music by Bach, has wonderful John Neumeier choreography. John Dew, producer of Wolfgang Rihm's opera *Hamletmaschine* made some changes of the revived version, to catch up with the political changes in East Germany. The cast includes Linda Plech, Carmen Fugiss, Richard Salter and Susanne Otto. *Tosca* is well sung by Leona Mitchell, Giacomo Aragall and Eduard Tumagian. Also offered *Don Pasquale*.

Cologne

Opera. *Salome*, excellenty conducted by Cologne's music director James Conlon with Stephanie Sundine, outstanding in the title role. *Simon Boccanegra*, produced by John Dew with sets by Gottfried Pilz will have its premiere this week. Susan Dunn and Dennis o'Neill make their Cologne debuts, and the cast inlcudes Dimitri Kavrakos, Wassili Janulako, Dieter Schelkart. Further performances of *Madame Butterfly* with Hiroko Nishida in the title role and *La Finta Giardiniera*.

Frankfurt

Opera. *Limb's Theorem* by Thom Willems and choreographed by William Forsythe opens this week. *Rusalka* has fine interpretations by Clara Barths, Gail Gilmore, Valentin Jar and Seppo Ruohonen.

Munich

Opera. *Il Barbiere di Siviglia* stars Edita Gruberova, Cornelia Wulkopf, Yevgeny Nesterenko and Bruno Pola. *Die Zauberflöte* is a well done repertoire performance with Hellen Kwon, Pamela Coburn, Matti Salminen and Manfred Fink. Marilyn Zschau takes the title role in *Macbeth*.

Stuttgart

Opera. Jommelli's rarely played *Fetonte* returns. The successful new *Lohengrin* production by Axel Manthey features Ruth Gross, Eva Randova, Roland Bracht and Paul Frey. *Fidelio* has a strong cast led by Deborah Polaski, Krisztina Laki, Matthias Hoelle and Toni Kraemer. *La Cenerentola* is sung by Doris Soffel, Joern W. Wilsing and Helmut Berger-Tuna together.

New York

Merce Cunningham Dance Company. This great contemporary company has achieved its own classic status as shown in programmes that remain exciting despite their familiarity. Ends March 25. City Centre (581 7907).

Metropolitan Opera. The week is capped by the premiere of Franco Zeffirelli's new production of *Don Giovanni*, conducted by James Levine. Carlos Kleiber conducts the last performances of Zeffirelli's *Otello*. Performances continue of James Levine conducting *Die Entführung aus dem Serail* in John Dexter's production with Mariella Devia, Barbara Kilduff and Gosta Winbergh. Gian Carlo Menotti's production of *Manon Lescaut* conducted by Thomas Lincoln Center Opera House (362 6000).

Washington

Dance Theatre of Harlem. The acclaimed New York company brings its mixed repertory including Swan Lake and John Henry. Ends March 25. Kennedy Center Opera House. (467 4600).

FINANCIAL TIMES
NUMBER ONE SOUTHWARK BRIDGE, LONDON SE1 9HL
Telephone: 01-873 3000 Telex: 922186 Fax: 01-407 5700
Tuesday March 20 1990

Kohl's famous victory

IF ever there was a famous victory it was that scored on Sunday by the conservative Alliance of Germany in East Germany's first free elections since the Nazis snuffed out democracy in the country in 1933. Though the unexpected result, which gave the Alliance more than 48 per cent of the total vote, left it 8 seats short of an overall parliamentary majority, in political terms it was equivalent to a rout.

By its vote, the East German population has made several emphatic statements. As expected, it has decisively rejected the discredited communist system which has governed the country for the past 45 years. In expressing its preference for the CDU, which favours Nato membership for a united Germany, the electorate has also implicitly rejected the option of neutrality, dangled before it by the Social Democrats. But, most important of all, it has opted in the clearest manner possible for German unification on the "fast track" terms offered by Chancellor Kohl, under which the East German Laender would simply adhere to the Federal Republic's constitution.

Nobody can be in any doubt that the victory was Chancellor Kohl's and not that of the East German Christian Democrats (CDU). Mr Kohl personified the voters' deepest political and economic aspirations, as demonstrated by the huge and enthusiastic crowds which attended his election rallies. For them, he was the leader of a government which had given its citizens one of the highest standards in the world,

No rosy path

The path ahead, however, is unlikely to be strewn with roses. It is obviously desirable that the East German government which negotiates the terms of unification with West Germany should be as broadly based as possible. However, the East German conservative alliance suffered its first set-back yesterday when the Social Democrats turned down the offer to join a coalition of the main political parties. On the economic front, the monetary union between the two states, which the Economics Minister designate, Mr Elmar Pieroth, said could be concluded by the end of June, also poses a host of problems, both for Germany and the European Community.

Some of the fears expressed may have been exaggerated, such as the inflationary effect of the promised one-for-one swap of East German marks for D-marks. German monetary officials believe this can be tempered by setting temporary ceilings on the conversion of East German mark savings. A much greater cause for concern is that East German wages, which are not much more than half the West German level, will be set too high in relation to productivity, leading inevitably to job losses and low investment.

Need to consult

The assumption that, because East Germany will be absorbed into the West German economy, no problems will arise for its integration into the European Community, is also over-optimistic. Mr Jacques Delors, the European Commission President, has emphasized that West Germany must consult its EC partners about the conditions on which East Germany can participate in the EC. It is clear, for instance, that some kind of transitional arrangements will have to be worked out for the adaptation of the East German economy to EC regulations, which it is in no condition to adopt all at once.

What is true for the European Community is even more relevant to the Western alliance as a whole. Mr Kohl's success in the East German elections has been widely welcomed in the West, not least by Mrs Margaret Thatcher. But it has taken some time for the Germans to realise that the other western nations feel that their interests are directly affected by German unification. That has been recognised in the "two plus four" consultative procedure grouping the two Germanys and the four Second World War allies, which Mr Kohl has fully endorsed. It is to be hoped that the Chancellor's triumph in East Germany will not in any way lessen his conviction that the pace of German unification must take into account the concerns of its neighbours and its allies.

A bold start in Brazil

AUDACITY AND surprise are the two most effective weapons a politician can deploy. Fernando Collor, the new Brazilian president, has shown he knows how to put both to good use.

When he took office last week, Brazil was braced for a shock economic adjustment programme to tackle the uncontrolled inflation bequeathed by the outgoing Sarney administration. But the measures are so broad and drastic that President Collor has both staked out his leadership credentials and wrong-footed his critics at the same time. The first hundred days have been compressed into the first 48 hours.

Admittedly, President Collor has been able to learn from the mistakes of others in the region, notably President Carlos Menem, in Argentina, who have done too little too late. But it is never easy to risk all one's political capital at the outset and President Collor deserves credit for doing so.

The President came to power having said all the right things, but surrounded in consequence by the faint unease that attaches to any minor politician who emerges from obscurity on the back of an almost too-good-to-be-true image of decisiveness and clean government. The sight of this youthful leader galvanising the ailing giant of Latin America is tantalising. There is a long way to go; but, with the right policies, Brazil could quickly recover the lost decade of the 1980s and begin to realise its potential as a major player in the 21st century. This is the significance of the era President Collor has initiated, which may be the New Republic hailed when the military relinquished power in 1985.

Liquidity squeeze

The main elements of the adjustment package are: a brutal liquidity squeeze, with a virtual freeze on personal savings and corporate assets; elimination of the budget deficit, by closing ministries, winding up public companies and laying off state employees; fiscal reform, including a wealth tax and higher corporate taxes; a freeze on wages and prices; and liberalisation of imports.

Ten years ago, such a shock programme by an incoming president would have been unthinkable anywhere in Latin America. However, it now follows a path beaten by Argentina, Bolivia and several other countries – quite apart from the previous Sarney government. But these measures differ not only in their severity and scope, but also in that they are set against a much broader back-drop of structural reform. Furthermore, President Collor's reforms attempt to tackle the huge gap between rich and poor which successive Brazilian governments, military and civilian, have ignored.

Wealth taxing

This is a necessary change of emphasis in a country which has some of the worst disparities of wealth in Latin America. It is also an astute political move. President Collor was run very close in the second round of the presidential race last December by the trades union leader, Luis Ignacio 'Lula' da Silva. By taxing wealth for the first time, the new president acquires a popular constituency which he is going to need, especially as the short term consequence of the adjustment package will be a sharp recession, while his party base in Congress is weak.

Ironically, the opposition is now most likely to come from those who have previously been shielded by the various arms of state, either through employment or through monopolistic business arrangements. The business community, Mr Collor's principal supporters, may well feel betrayed. Certainly in the coming months they will suffer from the combined effects of the liquidity squeeze and import liberalisation.

Nevertheless,the Brazilian private sector is better placed than any in Latin America to absorb such a shock; and before businessmen start screaming too loudly they should realise that the economic shake-up being proposed is a painful but positive path to maximise use of the country's enormous resources. This course will also be endorsed by Brazil's international creditors, who accept that the debt can only be tackled effectively once the correct domestic policies are in place.

Steven Butler reports on changes at the heart of British Petroleum

Cutting down and reshaping the core

Mr Robert Horton looks determined to live up to his American-earned sobriquet as the "hatchet gentleman." This was the friendly term applied to an Englishman who managed to chop out jobs in Cleveland when he was chairman of Standard Oil (the forerunner of BP America) and retain community support at the same time.

After just one week as Chairman of British Petroleum he is drastically cutting back the company's head office, and eliminating 1,150 jobs, with up to 900 redundancies over the coming year. Whether the "gentle" part of the appellation will still apply after this exercise in radical central office reshaping remains to be seen.

Most people losing jobs will be cleaners, building maintenance staff and computer specialists – services to be contracted for on a reduced scale when BP moves to its smaller corporate offices at Finsbury Circus, a stone's throw from its current skyscraper headquarters in the City of London.

Yet a significant number of managers from the core of the corporate centre is also going – 160 jobs out of the current 540.

And while a 30 per cent job loss at the centre is severe enough, the guts of Mr Horton's programme are far more sweeping than the implications of cutting a thousand jobs in a company with a staff of 120,000.

"What I'm trying to do," he says, "is to simplify, refocus, make it clear that we don't need any longer to have hierarchies. We don't need any longer to have baronial head office departments. This is a fundamentally different way of looking at the way that you run the centre of the corporation."

Mr Horton accepts the achievements of his predecessor, Sir Peter Walters, who is widely credited with helping BP out of financial difficulties in his 10 years in office, while restructuring and fixing a forward-looking strategy for the group. "This is not a reorganisation," Mr Horton insists. "And I'm not restructuring BP." However, "After 10 years, organisations build up an accretion of barnacles on their hull and need a jolly good scrape," he adds.

With a good scrape in his second week in office, Mr Horton aims to clarify and simplify the role of the corporate centre, devolve financial authority and responsibility down a flattened corporate hierarchy and eliminate committees and layers of control and planning – all of which is intended to force individuals to take responsibility and initiative – throughout BP, not just in Britannic House.

He wants BP to be more flexible and responsive in what is likely to be a turbulent decade. And he is in effect telling people in the operating businesses: I'm going to get off your backs and stop second guessing your decisions.

"What I want to get away from is a culture where the chairman says, 'I really want to know why the lavatories at the service station in Shiplake are not adequately stocked with toilet paper.'"

BP's basic business structure will continue to be dominated by four business divisions: exploration and production, oil refining and marketing, chemicals, and nutrition. The plan will lead to the final integration of the old Standard Oil business into the BP system. The Cleveland headquarters, where Mr Horton played a key role turning Standard Oil around, will be gutted of its operational role, although Mr Horton insists it will be even more important in strategic terms and in presenting the corporation's public face. Europe is being upgraded as a region, headquartered in Brussels.

Investment sums that can be spent without referral up the bureaucratic chain will be increased throughout the group. BP will, none-the-less, still be a far cry from the oil industry's paradigm of decentralisation, Shell, which vests almost complete autonomy in its nationally based, integrated operating companies.

BP is by no means the first giant multinational to attempt to redefine the centre and eliminate hierarchies. In Britain, ICI began the process eight years ago, under the redoubtable Sir John Harvey-Jones.

What is unusual is the spectacle of a mammoth preparing the revolution so thoroughly as BP – especially the "soft," human, aspects of radical change. In America, General Electric concentrated for its first few years under the abrasive, but inspirational, leadership of Jack Welch from 1981 on the "hard" aspects: job cutbacks, simplified structures and streamlined processes – leaving executives to fend for themselves and causing much disaffection among middle management.

Horton plans to make hard and soft go almost together, with job cutbacks followed swiftly by programmes right across the group aimed directly at changing attitudes and behaviour to fit with the changed work relationships. Mr Horton expects, perhaps optimistically, that this will take two or three years.

It is a vision that is far more easily articulated than achieved. Employees will have to prise themselves from a comforting bureaucratic womb and learn to take risks.

Horton recognises this: "The system will fight back because there are people who are comfortable with this. All their life has been trained for another sort of way of doing things."

And there is a danger not just that the programme might fail, but that if handled insensitively, it could provoke confusion and increase the cynicism that has accumulated in recent years inside the company, all of which was throughly documented in two opinion surveys last year that shocked the BP management.

What is proposed at the centre shows fully the potential for disarray. Some 70 corporate centre committees, 90 per cent of the total, are gone – closed, plain and simple – with individuals taking responsibility instead. Hierarchically structured departments are out – replaced by small flexible teams. Mr Horton and his close advisers evidently see the difference, but what about others in BP?

The first-day-on-the-job question – "Who do I report to?" – no longer has an answer at BP's corporate headquarters. The new "organisation chart" consists of ovals floating inside a larger oval (dubbed The Egg, by the Project 1990 team), with the chairman and chief operating officer sitting on top of it, and managing directors from the operating businesses hovering outside. Instead of structured hierarchy, managers will network – create their own patterns of interaction.

Mr David Simon will keep a steady hand on the tiller as chief operating officer, giving Mr Horton time to devote himself to strategy and external relations.

It all spells flexibility, but it may just as easily spell confusion unless responsibility if delegated precisely to individuals and teams. It will fail unless BP employees are conditioned to accept this new responsibility.

Mr Horton is probably well equipped to lead such a change. He is an extremely ambitious man whose character is not flawed by a lack of self-esteem. He rose rapidly to the top and, perhaps not unexpectedly, has won his share of detractors inside the company. He is, none the less, recognised as a highly capable man with an expansive personality and an appealing public face. He is willing to wade into the thick of controversy, as he did in Cleveland, and plead his case.

As he jets around the world in the coming months and years, arguing his corner face-to-face with many BP employees, he will surely win many converts.

One need not be cynical to notice that the changes are also certain to bolster Mr Horton's powers in the job by centralising head office authority around himself and Mr Simon, with whom he is sharing some of the traditional job of chairman. As much as the old committees and departments at the corporate centre served as an extension to the chairman's office, they also buffered the chairman from a direct relationship with the departments and the operating divisions. With traditional hierarchies cut away, managers will become beholden to Mr Horton, and, to a lesser extent, Mr Simon. If Mr Horton succeeds, BP will truly become his oyster and a gentleman he will remain.

Robert Horton laid exceptionally careful plans to stage the corporate revolution he has now unleashed within BP, writes Christopher Lorenz. Horton got the BP Board to commission "Project 1990" – a research and consultation process which prepared the revolution – last July, eight months before the retirement 10 days ago of Sir Peter Walters, and even before Horton had been confirmed officially as heir apparent.

Yet the need for change had become patently obvious. BP was bogged down in its own bureaucracy, and its senior staff became increasingly disgruntled – as was revealed at the beginning of 1989 in an opinion survey of its top 150 managers. The survey shocked Walters and his managing directors, not least because over half of the senior staff was unclear about the BP group's five year mission and strategy. Many of the 150 also felt that BP's structure impeded both operational flexibility and collaboration between different businesses.

Such internal criticisms of the effects of BP's near-military regime of committees, commands and controls were taken much further by the 4,000 lower-level respondents to a very broad-ranging questionnaire which was carried out by the Project 1990 team last autumn.

The Walters regime, introduced in 1981 shortly after his accession, was vital in its day: his erection of myriad checks and balances both across BP, and up-and-down its steep hierarchy, rescued the company from its flaccid state at the turn of the decade; before then, much of it had been run, like many large European companies of the time, on an integrated basis which was unwieldy, in spite of the fact that diversification had turned it into an exceedingly complex construct.

The basic elements of the structure which Walters introduced were: clearly-separated international "business streams" (divisions) with their own boards; and negotiated financial relationships at all levels across the business streams, and between them and head office. "It was exactly the right medicine", said one senior American BP manager today.

Yet, as the 1980s progressed, bureaucracy grew as committee was piled on committee, and as the head office involved itself with operational issues in addition to strategic and financial ones

A hectic divestment programme was meanwhile rendering the degree of complexity and control increasingly inappropriate. By the late 1980s, from having encompassed as many as 11 "business streams" in 70 countries, BP's spread and managerial complexity had been stripped back to only four streams: Exploration ("BPX"), Oil (refining and marketing) Chemicals, and Nutrition. With increased emphasis on regional management in Europe, America and the Far East, "an 11x70 matrix can now move towards a 4x3 one", as Horton puts it.

Still, old managerial structures, information flows, procedures and styles remained largely unchanged. "We spent more time dividing up the pie than trying to make it bigger", said the US executive. The medicine which had once been so potent was turning sour.

The head office also seemed to have become preoccupied with "asset-trading" – in other words, with portfolio management through acquisitions and divestitures. The effect on internal morale was inevitable, as last autumn's staff questionnaire showed only too clearly.

There was a financial penalty too. Instead of the size and cost of the London head office falling as the portfolio of businesses shrank, it increased by 10 per cent between 1987 and 1989, to more than 5,800 people (2,500 excluding engineering and research) Total UK corporate costs were up from £94m a year to over £130m last year. They were heading for £150m in 1990 before Horton got to work.

OBSERVER

French rugby off the field

■ The French rugby selectors sat out the Scotland-England match on Saturday at a seminar preparing for the summer tour of Australia.

After France's disappointing performance in the home championship, no-one seems very keen to go. Jacques Fouroux, the team manager, wanted to take a six month sabbatical, while the trainer, Jean-Pierre Romeu, found a pressing business engagement. The team as a whole has refused to face the mighty New South Wales for its opening match unless it leaves out its 10 internationals.

The real battle, however, is taking place off the field, as resistance mounts against the reign of Albert Ferrasse at the head of the French rugby federation. Now 72, Ferrasse has been the federation chairman for the last 20 years, and chairman of the International Rugby Board since 1987. He has made a lot of enemies, but while the French team went on winning he was difficult to dislodge.

Among the main criticisms was his determined support for players from his own club, Agen, and his vendetta with two of the most innovative rugby trainers in France, Pierre Villepreux at Toulouse and Daniel Herrero at Toulon. The feud helped keep some of their players out of the international side.

It took the direct intervention of President Mitterrand to persuade Ferrasse to add the gifted Denis Charvet, from Toulouse, to France's squad for the last World Cup.

After this season's defeats, the knives have come out. The first victim was the Ferrasse protégé, Pierre Berbizier, the captain and scrum-half, sacked after France's drubbing by England, with team manager Fouroux also in the firing line.

Opposition has now focused on Ferrasse in person, with the revolt led by the burly figure of Robert Paparemborde, the former prop forward and now manager of the Racing Club de France.

Ferrasse announced yesterday that he will not stand for a seventh term as chairman when his current stint ends in 1992. But, with Paparemborde breathing down his neck, he may not survive that long.

Opaque

■ A visitor to an American-run research station complimented his hosts on the windows in the computer suite. "Those aren't windows," he was told, "they're environment awareness panels."

Horton's hopes

■ A big part of BP's Project 1990 which was formally unveiled yesterday is aimed at making BP staff feel better about working for the company, at least the ones who still have jobs.

Robert Horton, the new chairman, wants to make BP into a company that is nationality, sex, and colour blind, something he says he tried very hard to achieve in the US, when he managed BP's final takeover of Standard Oil, which is now BP America.

Americans who have come to BP via Standard Oil are increasingly finding their way into senior positions in Britannic House. Horton wants to lower the barriers still further so that BP will become a truly transnational company. Otherwise it will not be easy to recruit and retain top-quality nationals from other countries.

Horton says he expects to see a woman appointed as one of BP's managing directors before he retires. When that will be is a question he can hardly be expected to answer with only a week in office behind him. Some of his staff, however, are speculating that his next stop could be politics. After all, he is only 50.

"I'm looking forward to spending less time with other people's families."

Trudeau's back

■ The Canadian who did a pirouette behind the Queen's back 20 years ago makes a return to the political limelight today. Pierre Trudeau will emerge from retirement to launch a book of essays reflecting on his 16 years as Canada's Prime Minister.

Trudeau has contributed only the introduction and the final chapter, and the contents are less significant than the timing. The man who used to scorn the media has arranged three press conferences in as many days to attack the policies of the present Prime Minister, Brian Mulroney.

Trudeau is opposed to the Meech Lake Accord, the constitutional agreement hammered out by Mulroney three years ago which recognises Quebec as a unique part of Canada. And in the book he calls the free trade agreement which Mulroney negotiated with the US "a monstrous swindle".

Since stepping down as prime minister in 1984, Trudeau, now 71, has worked for a Montreal law firm. As one of the world's most eligible single men, he has appeared more often in newspapers' social columns than their news pages. That will change this week, but we are assured that it is only temporary.

Prize to come

■ Nigel Lawson was sometimes called the "one club" Chancellor because of his insistence on relying on interest rates to control the economy. But there is another singular club that could yet be open to his successor, John Major. It is composed of post-1945 Chancellors who presented just one budget.

Hugh Gaitskell was Labour's only representative. In the words of Aneurin Bevan, his 1951 budget "united the City and divided the Labour Party". It led to the resignation of Bevan and Harold Wilson from Attlee's Cabinet, and in 1955 Gaitskell became Labour's leader.

In 1956 Harold Macmillan presented his single budget (best remembered for the introduction of premium bonds). Following the resignation of Anthony Eden, Macmillan became Prime Minister in January 1957.

Given a skilful budget, perhaps Major could join the club.

Crackers

■ A piece of string went into a bar and asked for a pint of bitter. The barman said: "I'm sorry, we don't serve pieces of string." The string left, and shortly afterwards another piece of string appeared in a dreadful state, dirty, unravelled and ragged, and asked for a pint of bitter. The barman said: "Aren't you the string that was in here just now?" The string replied: "No, I'm a frayed knot."

FT writers analyse Sunday's East German election

A vote for Anschluss

After years of craving for West German prosperity, East Germans were not likely to place their confidence in a thin politician, one laconic ambassador in Bonn remarked last week.

His observation about the girth of Chancellor Helmut Kohl – looking bigger and rosier than ever, in spite of six recent gruelling electioneering visits to East German cities – sums up why East German voters on Sunday opted decisively for a Christian Democrat-led government. The result of East Germany's first democratic election for the Volkskammer (parliament), defying opinion poll predictions of a win for the Social Democrats, will almost certainly also be the last.

The outcome reflects the views of the so-far silent majority of East Germans resentful and bitter after 40 years of communism. By giving 41 per cent of the votes to the sister-party of Mr Kohl's Bonn Christian Democrats, the East German electorate has selected as quickly as possible an anschluss with West Germany's well-upholstered economy. The drawback is that the planned replacement of the inconvertible East Mark by the DMark – a goal given top priority yesterday by Mr Lothar de Maiziere, the East German CDU leader, who is now prime minister-designate – will bring pain as well as benefits. For Mr Kohl, Sunday's Christian Democrat victory sounds the starting gun for a race against time.

Unemployment in East Germany – currently estimated at about 70,000 – is likely to rise substantially as the country's moribund and inefficient companies are exposed to the full force of competition. The East German economy is churning out goods hopelessly outclassed in price and quality by West German products, which will be competing on equal terms as soon as the DMark is made legal tender east of the Elbe.

The challenge for Mr Kohl and Mr de Maiziere is to encourage West German industry somehow to invest sufficiently before unemployment starts to rocket – an outcome which could trigger political and social tensions in both German states.

"This was a vote for the West German government," Mr Michael Müller, pastor at the Protestant Church of the Cross in Dresden, said yesterday. He is a veteran of the widespread protests in the city last October which helped trigger the East German revolution.

Particularly in the south of the country, where the Christian Democrats secured roughly three-quarters of their 164 seats in the 400-deputy Volkskammer – voters chose the "strongest force" in the direction of unity, Mr Muller said.

Christian Democrat leader, Lothar de Maiziere (right) shares a toast with West German politicians on Sunday

The pastor himself voted for the Alliance 90 citizens' initiative group, pooling together some of last year's dissident forces. He added a note of hope tinged with scepticism: "Now, it's up to industry to stimulate the economy."

East German voters now expect Mr Kohl to deliver on his promises of well-being. Yesterday's political

The outcome reflects the views of the so-far silent majority of East Germans, resentful and bitter after 40 years of communism.

sparring in East Berlin over the future government gave a hint of difficulties to come.

The Social Democrats, who won 22 per cent of the vote, rejected the idea of entering a coalition with Mr de Maiziere and his two smaller conservative partners, which together brought the Right score to 48 per cent.

Mr de Maiziere, a church lawyer, badly needs a broad-based coalition. Mr Kohl, continuing the dominant role played by western parties in the East German election campaign, urged the East German Christian Democrats on Sunday night to aim for a Grand Coalition to spread the political risks likely to stem from unpopular economic measures, such as cuts in subsidies.

Mr de Maiziere also needs to secure a two-thirds majority in the Volkskammer to allow East Germany to accede to West Germany under Article 23 of the Bonn constitution. This clause lays down an automatic mechanism for "other parts of Germany" to join the Federal Republic.

It is precisely Article 23, however, which has drawn the strongest opposition of the Left during the East German campaign, with the Communists in particular playing on fears of an uncontrolled "sell out" of East Germany to the West.

The former Communist Party, participating on Sunday under its new name of the Democratic Socialist Party (PDS), won enough votes – 16 per cent – to make life difficult for the CDU and SPD.

Mr Stefan Heym, the veteran East German novelist who was one of the spiritual fathers of last autumn's protest movement, is one of the main opponents of a "takeover" by economic interests in the West. Mr Heym is scathing about the Communists – "stupid people who couldn't give up power." But he also says of the possible consequences of economic unity: "It's going to cost a lot of people blood, sweat and tears. Maybe even worse."

However much acclaimed by the flag-waving masses, the quick route to unity is opposed by a strong body of Communist functionaries still holding some important positions. One official at the Staatsbank, the central bank – which will be absorbed by the Bundesbank once monetary union takes effect – grumbled yesterday that the coming new laws on property rights "would not be to the benefit of the people."

In the aftermath of the poll, East Germany presents an almost surrealistic picture. Large stretches of the Berlin Wall – which Mr de Maiziere pledged yesterday to pull down "as quickly as possible" – are plastered with acres of election posters printed and paid for by Western parties.

After a breath-taking transition from Stalinism, East Germans have given the impression of easy adaptation to the ways of democracy.

As a sign that the second German state is adjusting to the new balance of risk and opportunity, Mr Kohl is desperately hoping that emigration to the West will fall in the next two weeks. Last week, he voiced fears that the exodus could reach 500,000 by the summer unless people gained confidence.

With an eye on the Federal German elections in December, as well as possible elections in 1991 for a united German parliament, Mr Kohl has to avoid disappointing 16 million East Germans – as well as persuading 61m West Germans that the costs of unity will not be too high. On the Christian Democrats' route to reunification, winning the election on Sunday may turn out to be the easiest part of the journey.

David Marsh

East Germans decide the fate of Europe

Twelve million East German voters decided the fate of Europe on Sunday, apparently without knowing it.

Nato, the Warsaw Pact, the EC, troops, missiles . . . none of these played a major part in the election campaign. The main issue was whether East Germans would do better to throw themselves into the arms of the Federal Republic or to hold out for some kind of bargain.

On this issue they were, as it turned out, split almost evenly. The Christian Democrats (CDU) and their allies, who campaigned for unity as fast as possible, using Article 23 of the West German Basic Law, were in strict arithmetic the minority, with 48.2 per cent of votes. All the other parties, between them representing a narrow majority, were to some degree opposed to this procedure.

But such a majority is, of course, purely arithmetical. No coalition is possible between the ex-communists (16 per cent) and the Social Democrats (SPD – 22 per cent), let alone the Free Democrats (5 per cent) and the three other small groups, which would be needed. Politically, the CDU are the undoubted victors, their achievement in winning nearly double the SPD's total amplified by the widespread forecast that an exactly opposite result was likely. They will, no doubt, seek a broad coalition with both SPD and Free Democrats but neither will be strongly placed to quibble over the procedure or the timing of German unity.

This result will surely seem like more bad news to President Gorbachev, even though he had already resigned himself to German unity as such, and probably also to the united Germany being a member of Nato. On that second point he has been playing for time, evidently hoping that, in the "Two plus Four" talks between the wartime Allies and the two Germanys and in the ensuing pan-European summit he will be able to win some concessions on the disposition of troops and weapons in Germany, on the transformation of the alliances into "political" (or non-military) organisations and on the creation of some kind of European collective security system bridging the East-West divide. He needs time for all of that, and also perhaps to let the Soviet public and armed forces get used to the idea of German unity.

West Germany's allies would also prefer a slower route to German unity, for similar if not identical reasons. They value Mr Gorbachev as a Soviet partner, and do not want to see his domestic situation made more difficult than it is already. They also see the delicacy and difficulty of adapting the European security system – not only Nato but such hoary issues as the Allied status in Berlin – to a Europe including a reunited Germany: they accept that adjustments are necessary but are afraid it will be botched if it is done in a hurry.

But there is the consoling fact that Chancellor Helmut Kohl, the real victor in Sunday's election, is firmly committed to remaining in Nato, whereas the Social Democrats, who are the main losers, are divided and ambivalent on the issue. Besides, the procedure for unity favoured by the CDU – adhesion of the East German Länder to the existing Federal Republic – makes it less likely that Nato membership will be an issue in the German-German talks, although it is still bound to be one in the Two-Plus-Four negotiation, which has to deal with the "external aspects" of German unity. In those talks, it now seems reasonable to expect that both German delegations will side with the three Western allies in arguing that the united Germany will be a continuation of the present Federal Republic and will therefore be bound by its international obligations, including membership of Nato, the EC and the Western European Union.

They will not argue, however, that this implies an immediate withdrawal of Soviet troops from East German territory, still less a triumphant advance of Nato forces from the Elbe to the Oder. Paradoxical though it seems, a united Germany may well wish for Nato membership as a guarantee against Soviet aggression, and yet be quite content, at least for a time, to have the army of the putative aggressor encamped on the eastern portion of its territory.

Not only that. It looks as though it will be prepared to let the Soviet forces be the *only* troops in that part of Germany, with the possible exception of a continued Allied presence in West Berlin. Mr Walter Momper, the Social Democrat governing mayor of West Berlin, has made the constructive suggestion that East Germany as a whole should be governed by the same rule as West Berlin is at present – that is, there should be no German forces there and the population would not be liable for service in the Bundeswehr. This would presumably be reassuring to the Poles as well as the Russians.

Some people have interpreted Mr Momper's proposal as meaning that Berlin's present status under Four Power occupation should be extended to East Germany, but this, I believe, is a misunderstanding. Everyone agrees that the Four-Power status is an anachronism, which it has been convenient to maintain as a legal basis for the Western allies' presence so long as West Berlin's freedom was threatened, but which must be ended as part of the package of international agreements which will set the seal on German unity.

Mr Momper certainly intends that both Berlin and East Germany should be under the unfettered sovereignty of the united German state – of which Berlin will almost certainly be the capital. Soviet troops would stay in East Germany and some US, British and French troops would stay in West Berlin, not as occupiers but under an arrangement freely arrived at between Germany and the Four Powers.

The main objection to this set-up is that it would be hardly less artificial than the present arrangement, without even the excuse of being a survival from a previous era when it made sense. What is going to be the mission of all these troops? Who exactly will they be protecting from whom? Why would West Germans and West Berliners require protection from a Soviet force whose presence in their country had already been freely accepted by their own government? And what would the Soviet commander tell his men was the purpose of their presence in Germany? To defend unarmed East Germans against their armed compatriots in the West?

In the end one hopes there will be no good answers to such questions; that neither a united Germany nor a disunited Soviet Union will any longer seem threatening to anybody. Then either the whole business of keeping troops in foreign countries will be seen as an unnecessary expense or, perhaps, we shall all station small units on each other's territory as part of an elaborate web of peacekeeping and confidence-building arrangements. But what we need right now are transitional arrangements to get us through the next few years of uncertainty; and the Momper Plan looks like a good one.

Edward Mortimer

LETTERS

Implications of Caparo

From Mr T.G.R. Lawrence.

Sir, Too much is being made of the argument that accounts are of less value to potential investors now than they were before the Caparo decision.

The Companies Act requires directors to produce true and fair accounts of the company's profits and financial position, to send those accounts to all shareholders and to file them with the registrar of companies. The accounts are required to be audited so that the auditor adds his professional opinion whether the directors have fulfilled these obligations.

The result is that accounts come into the possession of the shareholders and others that are useful to them in making decisions about their dealings with the company. None of this has changed at all.

What has changed is the identity of who can sue the auditors on the rare occasions when they fail to detect that the directors have not fulfilled their obligations. That does not mean that the accounts are any less useful than before.

Life is full of examples of useful information being produced, at no cost to those who use it, by people whom no one thinks of suing if they make a professional mistake in the course of their work – journalists, weather forecasters and those who provide road traffic reports to name but a few.

Whether information is useful and generally reliable is quite different from whether the provider of that information should thereby accept liability in an indeterminate amount for an indeterminate time to an indeterminate class.

It was decided as long ago as 1931 that that would not be reasonable. Recent case law had begun to cast doubt on the question. The House of Lords has now reaffirmed this important distinction between the provision of useful information and acceptance of the liability to be sued if it is wrong.

Accountants remain liable to be sued if they do a bad job and will continue to be as generally careful as ever. The fact that the range of potential plaintiffs has been reduced will not make them any less careful in the discharge of their duties. The accounts they audit will be as useful as they ever were.

T.G.R. Lawrence,
Coopers & Lybrand Deloitte,
Plumtree Court, EC4

Overdue call for compulsion

From Mr Ansel Harris.

Sir, The contribution by Professors Layard and Prais to the employment training debate ("Time to think about compulsion," March 15), is timely, coinciding as it did with the first anniversary of the announcement of the creation of the Training and Enterprise Councils (TECs).

The idea contained in the headline might be chilling. It is however not only timely; it is overdue.

The Anglo-American Council on Productivity's report, Universities and Industry, was but the first of many addressing the subject on which little or no action was taken. One of its urgent recommendations read: ". . . immediate attention should be given to the provision as rapidly as possible of extended facilities for preparing a large number of young men for industry, giving them a broad general education on a full-time basis with a technical standard at least as high as that of the Higher National Certificate courses." That was in 1951!

In the last decade, since the New Training Initiative White Paper, 1981, we have witnessed a proliferation of reports and white papers expressing concern and suggesting ways of dealing with the fact that "Britain's workforce is under-educated, under-trained and under-qualified" (CBI report, Towards a Skills Revolution, July 1989). Initiatives to the same end have been taken both by government and the private sector, but none with the required clarity of purpose and commitment.

Concerned as our members are with the skills problem, we have, over the years, initiated a number of programmes with our local colleges of further education. That is why in welcoming the TECs we wrote: "We urge it (the National Training Task Force) to encourage, perhaps even make mandatory, that one of the seats on each TEC be allocated to an experienced representative of the local education and training community." (Letters, March 25 1989).

Sadly this advice has fallen on deaf ears. We have been advised of the prospective board members of our two local TECs. Representatives of the education and training community are notably absent. That is why we welcome and endorse the two professors' recommendation of "part-time vocational education which is compulsory and free."

Ansel Harris,
Park Royal Enterprise Trust,
Waxlow Road, NW10

Year by year improvement

From Mr John Porter.

Sir, In covering a report by the National Economic Development Office comparing two similar construction projects, in Cumbria and South Carolina ("UK construction productivity criticised," March 7), Andrew Taylor says: "Productivity of UK workers . . . was 42 per cent lower than that of US engineers . . ."

Although this statement does occur in the report, it cannot be justified by a close study of the detailed findings. It is true the report shows that 27 per cent more man hours were taken to construct the UK plant (1.2m compared with 945,000), but it also explains that, although the British project took only 5 per cent longer to complete, work started four months earlier, allowing US workers to avoid snags encountered in Cumbria, and points to differences in building regulations which adversely affected the UK project.

Those of us who have a responsibility for the performance of the UK engineering construction sector are far from complacent and recognise the need for continued improvement in productivity. As reported by the FT on January 19, our national joint council has recently approved some far-reaching changes in pay structures, training arrangements and working practices which are designed to deal with many of the problems highlighted in the NEDO report. But success breeds success and it is counter-productive to play down the significant improvements gained over the past few years by exaggerating current comparisons with productivity in the US or anywhere else.

The facts are that the UK engineering construction industry is better equipped than ever before to meet the needs of clients and is improving its performance year by year. I trust that any potential capital project investors who may have been misled will modify their views in the light of my comments.

John Porter,
Director and Chief Executive,
NECEA,
Broadway House,
Tothill Street, SW1

German monetary unification

From Mr Giorgio Radaelli.

Sir, Robert Lawrence and Warwick McKibbin ("Counting the cost of unification," March 15) correctly highlight the policy dilemma posed by monetary unification in Germany.

A Mark conversion rate strong enough to stem emigration from East Germany would have the undesired side effect of discouraging foreign direct investment by boosting the foreign currency level of East German wages. This is a case in which we face more targets (two) than we have instruments (one).

However, the suggestion of adopting a strong conversion rate accompanied by wage subsidies in East Germany is ill-judged. Not only would the pressure generated on West German public finances (and the consequent tax rises) cause resentment among many West Germans but, more importantly, the likely interest and exchange rate repercussions would hardly please the other member countries of the European Monetary System. Unless the Bundesbank embraces a fully accommodative monetary stance the fiscal boost would drive both German interest rates and the currency upward thus causing either EMS instability or lower growth.

Therefore, a solution which avoids strains on West German public finances is called for. One idea would be to opt for a realistic conversion rate (no less than DM 1 to four East German Marks) so as to keep domestic wages competitive and to compensate East Germans by allowing them to purchase land and other state assets at more favourable terms than those applied to foreigners. That way the loss of income to East Germans due to the low conversion rate would be offset by a boost to their tangible wealth while wage levels would remain attractive to foreign capital.

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FINANCIAL TIMES

Tuesday March 20 1990

SOVIET REFORM PACKAGE

Moscow plans for market economy

By Quentin Peel in Moscow

RADICAL MEASURES to demolish state control over areas of the Soviet economy, including liberalising prices and introducing some form of rouble convertibility, are planned by the start of July.

Details of the reform package were revealed yesterday, confirming that Moscow would attempt a drastic acceleration of progress towards a market economy, including a law on shareholding enterprises, anti-monopoly legislation and the broadening of ownership.

The change in both the tempo and nature of Soviet economic reform was promised by Mr Mikhail Gorbachev in his inauguration speech as Executive President last week. Senior advisers said he was looking at a programme for "100 days."

The Radio Moscow news service, Interfax, said yesterday that 17 inter-related papers on economic reform had been tabled with the Supreme Soviet. These had been worked out under the direction of Dr Leonid Abalkin, the deputy premier in charge of economic reform, but had apparently still not been approved by the Council of Ministers.

Mr Gorbachev appears to be preparing to go ahead with the package, whether or not the government, in the shape of the Council of Ministers and the parliament – the Supreme Soviet – agree.

The programme follows closely the sort of lines espoused by Mr Gorbachev's new economic adviser, Professor Nikolai Petrakov. It appears similar to the Polish economic reform measures, involving severe austerity in the form of price liberalisation combined with wage controls.

The Soviet model would also include the abolition of government control over wholesale trade and a switch from central planning control over investment to control through a revitalised banking sector.

"Altogether, the programme is aimed at de-statisation of ownership and transition to a market economy," according to Interfax, which has proved well-informed in recent weeks about the process of the presidential reform programme.

"The programme would lead to the de-monopolisation of the economy, and the de-ideologisation of the economy and of social life," it said.

The package would include financial reform, banking reform, approval of a law on shareholding, price reform and the introduction of social security measures in the form of direct compensation to protect the poor.

"It also contemplates the realisation of rouble convertibility and the introduction of a proper parity for it," Interfax said.

It seems unlikely that outright rouble convertibility would be contemplated so soon. However, Prof Petrakov has argued for the introduction of a parallel rouble, fully convertible, to be used in foreign projects including joint ventures and special economic zones, and also to promote Soviet exports and vital industrial sectors.

Prof Petrakov's plans would require a big injection of consumer goods into the economy, to compensate for open inflation and help soak up the huge overhang of excess money in circulation. That in turn would seem to require a major import programme of consumer goods and foodstuffs, financed by borrowing, until the Soviet consumer goods industry can boost its own production.

The Interfax report suggested that more than 40m would be below the poverty line, and needing compensation, and cheap food outlets would have to be introduced.

The package would be introduced both through new laws in the Supreme Soviet, resolutions of the Council of Ministers, and the new presidential decrees.

It is not clear whether the reforms will be acceptable to Mr Nikolai Ryzhkov, the Prime Minister, who in December was responsible for a cautious economic reform package denounced as inadequate by reformers.

Tokyo market weighed down by nerves

By Stefan Wagstyl and Michiyo Nakamoto in Tokyo

THE Tokyo stock market yesterday suffered its third-biggest fall as investors succumbed to a new wave of uncertainty about the outlook for the Japanese yen and for interest rates.

The Nikkei index dropped 1,353.20 points to close at 31,263.24, its lowest level for more than a year.

The index has now fallen by almost 20 per cent since hitting an all-time high at the end of 1989.

The yen hit a three-year low in Tokyo of Y153.80 to the US dollar. Bond prices slipped further, pushing the yield on the benchmark government bond to 7.235 per cent.

"The stock market has changed. People are still trying to adapt to the new environment of the 1990s," said Mr Charles Lambert, a salesman at Jardine Fleming.

One Japanese broker said: "We are all so shocked by the sharp fall in shares that we can hardly say anything."

The authorities tried in vain to reassure investors with public statements. Mr Ryutaro Hashimoto, the Finance Minister, said he was gravely concerned about the fall in the yen. A senior official of the Bank of Japan said the central bank had at the beginning of the year expected a correction in stock market prices but the adjustment had been bigger than expected.

Hashimoto: gravely concerned

Japanese fund managers mostly stayed away from the market as they have done for much of the year, so trading was thin.

However, some industrial companies and financial institutions continued to liquidate investment trusts before the end of the financial year at the end of March. The market was heavily influenced by futures-linked computer-driven trading. The futures contract based on Topix, a broad index of more than 1,000 stocks, fell by the maximum daily limit.

Reports that two groups of speculative investors were in financial difficulty exacerbated the sense of uncertainty. Mr Peter Tasker, research manager at Kleinwort Benson International, said that at times yesterday "the market was in free fall."

Brokers said the Nikkei was widely expected to fall below 30,000.

Shares in Nippon Telegraph and Telephone, the world's largest company by stock market valuation, yesterday fell for the first time below their original issue price of Y1.19m, closing at Y1.18m.

The price fall is very embarrassing for the Finance Ministry which handled the privatisation of the formerly state-owned company.

Mr Haruo Yamaguchi, president of NTT, yesterday apologised to shareholders saying: "I am very sorry the share price hit its lowest-ever point. We will continue our utmost efforts to get a high valuation again by improving our business performance."

The main force driving shares down continues to be a strong fear that the rise in Japanese interest rates, which began last spring, is not yet over.

The Bank of Japan is widely believed to be considering another hike in the Official Discount Rate although officials condemn such thoughts as speculation.

In the meantime, market rates have been creeping up despite the authorities' best efforts to keep them down. But they have not risen fast enough to prevent a decline in the yen.

Investors believe that only a sharp rise in the official rate from its current level of 4¼ per cent will help to restore confidence in the currency.

In the meantime, investors seem to be jumping on reasons for selling yen.

The trigger for yesterday's sharp fall was news that conservative forces had won the East German election, which prompted a surge in the West German mark.

Anti-inflation plan baffles Brazil markets

By Ivo Dawney in Rio de Janeiro and John Barham in São Paulo

BRAZIL'S financial and stock markets were virtually paralysed yesterday as perplexed traders sought urgent guidance on how to implement the country's drastic anti-inflation plan.

The confusion stemmed from the 220-page package of measures tabled by the new government of President Fernando Collor on Friday.

These included the effective creation of a floating currency, the cruzeiro, taxes on financial transactions and the blocking of depositors' access to an estimated $100bn in bank and savings accounts and overnight markets.

The liquidity squeeze has provoked fierce controversy, with some praising its audacity and others threatening legal action against the government.

Yesterday, a São Paulo retailers' association warned that the immediate impact of the package would be a 75 per cent fall in sales and a deep recession.

Others are more optimistic, with one banker arguing that markets should settle down within a week as savers return to invest in mutual funds, Certificates of Bank Deposits and overnight accounts.

Bankers reported that detailed information on how the reforms would be implemented was still being received from Brasilia yesterday afternoon, hours after the banks reopened at the end of a three-day holiday.

Towards the end of business hours, finance houses and banks were complaining that the Central Bank had still not issued details of how much liquidity would be made available to close or reschedule client's transactions.

Efforts to establish a value to the cruzeiro, which replaces the cruzado novo, proved fruitless.

One report said the currency was being quoted at rates from Crs78 to the US dollar to Crs42 – a range that reflected previous official and free market rates offered for the old cruzado when markets were open last week. In fact, none of the technically illegal free exchange houses that normally trade the dollar were operating, either for fear of a police clampdown or because of lack of funds.

Gold was reported trading at Crs650 a gramme, a fall of 43 per cent against last week.

Tight money, iron nerves, Page 6

Baseball's golden boys go back to the diamond

By Peter Riddell, US Editor, in Washington

PLAY BALL! The 32-day lockout of America's baseball players by the 26 owners of major league baseball clubs ended early yesterday to the immense relief of both sides to the dispute, of television stations paying out about $400m a year in rights to show games and, not least, of increasingly impatient fans.

Former Yale first base and keen fan President George Bush said last week he wanted to go to the opening game someplace, following the presidential tradition of throwing out the first ball. He will have to wait until April 9, because opening day has been put back a week.

The players officially start spring training in camps today in Florida and Arizona, nearly five weeks late.

The dispute has been about how wealthy players, already earning an average of $500,000 a year, and even wealthier owners, should carve up an increasingly lucrative monopoly.

Baseball boomed during the 1980s with attendances rising, with 2m or 3m aggregate gates for some big city clubs, and television fees soaring.

The CBS network recently signed a $1.06bn contract for four years and the cable ESPN channel has a $400m agreement – leaving aside profitable local television deals arranged by individual clubs.

The beauty of it all for the owners has been that the clubs have controlled entry to the baseball market and delayed any further expansion of the number of teams of the kind seen in the 1960s and 1970s.

With such an attractive and fast-growing pot of money, owners and players have both displayed unashamed greed. The owners have sought to limit the conditions on which players can move from team to team at ever higher pay rates, while pitchers or batters with a couple of good seasons have signed for million-dollar sums to guarantee their futures.

At issue was the comparatively minor matter of whether players would be able to seek higher salaries through independent arbitration after two or, at present, three years of major league play. Eventually, a messy compromise was agreed limiting the number of players qualifying after two years.

A new minimum salary of $100,000 was agreed, up from $68,000 at present.

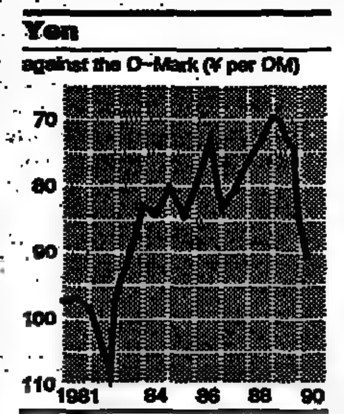
The late-night agreement came amid signs of increasing impatience among fans and with players eager to get out on the diamond.

But, as a leading baseball figure acknowledged yesterday, everyone will soon forget such nonsense and wonder whether the Oakland 'A's can repeat their form after crushing the San Francisco Giants so totally in the earthquake-delayed World Series last October, and speculate about who will be the first manager to be fired.

THE LEX COLUMN

A tale of two currencies

The German equity market hit a new peak yesterday, Japan suffered its third worst fall, global bond markets dropped and currencies were all over the place. It was hardly the ideal background for Mr Major to pencil in any last minute corrections to this afternoon's UK Budget. Does the swing to the right in the East German elections increase or decrease the likelihood of a much stronger D-Mark over the longer term? Can the collapse in the Japanese equity market be ignored? There are no easy answers: but the questions serve to highlight the fact that for all the UK's real domestic problems, events overseas are just as likely to determine the success of this year's Budget strategy.



In one respect, Japan is suffering from a similar problem to the UK's – official indecision. For more than a month now, the various arms of Japanese officialdom have been bickering about what to do about the discount rate. Today's Japanese money supply figures are likely to underline the growing worries on the inflation front; and the delay in raising interest rates has exacted a heavy toll on the currency, which has fallen by more than a third against the D-Mark over the last year. Arguably, a prompter interest rate response might have prevented one of the sharpest declines in the Japanese equity markets for many a year. The fear now is that the authorities will have to over-react to stem the yen's slide.

Although the UK's economic problems are far more severe, the authorities face a similar sort of exchange rate dilemma. Since the last Budget sterling has been allowed to fall by 11 per cent, which is a major reason why the Government's inflationary forecasts have gone so badly wrong. That is why the verdict of the foreign exchange markets, as opposed to the electorate, is so important in today's Budget.

BP

New chairmen like to stamp their authority on a company. Mr Bob Horton, who already has a reputation as an axeman, has wasted little time in attacking the structure of BP. Doubtless all multinationals have a tendency to drift into bureaucracy and need regular pruning; fashion also tends to fluctuate between product-led and regional structures. The danger is that these refocussing exercises take more time than they are worth; they can destroy morale and cause the exodus of much-needed, rather than superfluous, staff.

Of course, BP is wise not to rely merely on a rising oil price for profits growth in the 1990s, especially as it faces unspecified but probably hefty environmental expenditure. On top of the $500m of costs (including last year's exploration cuts) that should be saved in the restructuring, the sale of Britannic House ought to net £150m-£200m, even in currently depressed property markets. But it may not be easy to spot the savings in the annual accounts, since everyone expects Mr Horton to make a major acquisition, thus starting the whole merry-go-round of reorganisation all over again. What will secure the future of BP is a major oil find, to help replace the Prudhoe Bay and Forties fields; but that is something no amount of internal reorganisation can secure.

Berisford

On the face of it, the market is scarcely keen on Tate & Lyle taking over Berisford. Yesterday's confirmation of talks led to an 8 per cent fall in Berisford's price and a 3 per cent fall in Tate's, or a drop of £82m in combined market value. This was due partly to fresh rumours about the dire condition of Berisford's New York property portfolio. But it was also a rational recognition of the fact that Tate is the one bidder practically guaranteed a reference to the Monopolies Commission.

The MMC's findings might be less predictable. The climate may have changed since the Commission's last report in 1987, given the Rowntree takeover and the question of whether Berisford is still a sensible owner of such a valuable national asset as British Sugar. Though the combined business would be a monopoly producer of sugar within the UK, excess production in France should mean that the UK price would still be a function of the EC support price plus the cost of transport across the Channel. The benefit to Tate would thus come not from higher pricing, but from such cost savings as could be derived from packaging and distribution.

It is not clear that Tate could finance such a deal without recourse to shareholders, who would need very specific assurances about the prices to be realised – or paid – for getting shot of the rest of Berisford. And until the whole New York mess is made clearer, there would be no case for paying any premium at all to yesterday's price of 134p.

IMI

There is something so solid about IMI's progress that it is far from obvious why investors mostly let its shares lag behind those of the UK's other remaining mechanical engineering companies. The most obvious explanation lies in the West Midlands engineer's exposure to the construction products, like copper tubes, for one-fifth of its trading profits. Yet what actually happened last year was that within the 16 per cent rise in IMI's pre-tax profits, to £125m, its building products side hardly suffered at all, as its sales into the buoyant West German market took up some of the slack from the UK.

Neither was there any slippage in its enviable dividend history, which has been showing a long-term growth rate of 18.5 per cent per annum since the early 1980s. That record seems to stem from IMI's strong market positions in niches such as making vending machines for Coca-Cola, and titanium alloys for Rolls-Royce aero engines. And though trading margins overall have already widened, from 7.5 per cent in 1985 to 11.6 per cent last year, there still looks to be room for improvement, flowing from IMI's large capital spend.

The only explanation one can readily hit upon for IMI's low rating, at about 9 times historic earnings on last night's share price of 227p, is that it may not have done enough acquiring. But with balance sheet gearing at only 5.3 per cent, there is no room for questioning its assertion yesterday that it could easily fund a £100m acquisition, if it found the right one.

Criticism of market reforms

Continued from Page 1

April 27, are expected to come into effect in October, following systems changes.

These largely involve a rebalancing of the rights and responsibilities of the market's participants.

This would result in a reinstatement of the obligation for market makers to deal with each other, and for trades to be published promptly, although large trades would still not be disclosed for 90 minutes.

The removal of these rules a year ago prompted concern from some in the market, particularly US houses, that the exchange's old guard was bending the rules unfairly in its favour.

East German coalition hitch

Continued from Page 1

aim is to overcome confrontation between blocs and to create a European security system to replace the present military alliances."

Looking ahead to the first united German election – possibly in 1991 – Mr Kohl said the West German CDU and Christian Social Union (CSU) would have an excellent chance with their sister parties in East Germany. The Bonn Government was ready to talk immediately with the new East Berlin Government about steps leading to unity.

But he added: "We are not trying to create any artificial pressure of time to accelerate the process of unification."

International concern over unification

Continued from Page 1

ised the West German politicians who openly campaigned in East Germany during the elections. "I did not like it that the West German politicians took a very active part. That was interference," he said.

The Soviet spokesman said that the conservative alliance had won less than 50 per cent of the vote and would still be forced to form a coalition government, which might take some weeks. "We must wait until the government is formed. This German problem is still going to be discussed, and discussed, and discussed."

In Brussels, the European Commission's formal welcome for the election outcome belied a general air of surprise.

Community officials acknowledged that the unexpectedly strong showing of the conservative Christian Democrats put the two Germanys on a fast track towards unity and that pressures to work out the practical and political implications for the Community would now be intensified.

Mr Helmut Kohl, the West German Chancellor, will have a chance to set out his ideas when he meets Mr Jacques Delors, Commission President, and his fellow Commissioners in Brussels on Friday. Mr Delors is expected to offer his full support and co-operation during the process of unification but he will also hope to receive some clear gesture from Mr Kohl in return, preferably a renewed commitment to European economic and monetary union.

In an interview on French radio, Mr Delors insisted that the European commitment of Mr Kohl "is not in doubt" – but nervousness in Brussels before the Friday meeting reflects deep-rooted anxiety that the pace of European integration is in danger of slowing down.

Friday's meeting will also be an opportunity for Mr Frans Andriessen, EC External Relations Commissioner, to advance the Community's case for a proper "seat at the table" during negotiations between Bonn and East Berlin.

It is no secret, for example, that he considers the "four plus two" formula whereby the two Germanys will sit down to work out the details with the four wartime allies to be an insufficient safeguard for the EC and that he believes the political co-operation sections of the revised Treaty of Rome require member states to consult each other where foreign policy issues of such magnitude are at stake.

Mr Delors yesterday said in his radio interview that "difficult economic times lie ahead for the Germans". He talked of a period of transition for Germany and its Community partners, comparing the situation twice with the mid 1980s "adhesion" of Spain and Portugal and the special regime installed for agricultural and certain industrial products. A "technical" solution would be needed given that " we are not going to re-establish the frontiers".

Mr Andriessen today starts the task of co-ordinating with Nato on the external aspects of German unification at a highly unusual meeting with Nato ambassadors. The aim of the two Brussels-based organisations is to negotiate terms of entry for East Germany into the EC and Nato rapidly enough to avoid an external brake on German unity.

Nato publicly welcomed the weekend elections as something "this alliance has always supported." A senior Nato official said the technical aspects of absorbing East Germany into the EC were probably more complicated, because they touched on everyday economic issues, but Nato also had an important role in taking account of united Germany's eastern neighbours.

To this end, Mr Krzystof Skubiszewski will tomorrow become the first Polish foreign minister to visit Nato for discussions with Mr Manfred Wörner, the Nato secretary general.

In the US, the White House said the Christian Democrats' victory showed that the march toward German unification was "inexorable". However, Mr Marlin Fitzwater, President Bush's press secretary, described the elections as an historic occasion, allowing the Eat Germans to decide their own future.

In London, Mrs Margaret Thatcher, the Prime Minister, hailed the elections as a great day for East Germany and for Europe.

WORLDWIDE WEATHER

		Y'day midday °C	°F			Y'day midday °C	°F			Y'day midday °C	°F			Y'day midday °C	°F
Ajaccio	F	17	63	Dallas †	S	8	46	Madeira	S	22	72	Prague	S	17	63
Algiers	S	23	73	Dublin	F	10	50	Madrid	S	16	61	Reykjavik	C	0	32
Amsterdam	C	15	59	Dubrovnik	S	20	68	Majorca	F	20	68	Rhodes	S	20	68
Athens	S	21	70	Edinburgh	S	9	48	Malaga	F	18	54	Rio de Janeiro	–	–	–
Bahrain	C	19	66	Faro	S	18	64	Malta	S	17	63	Rome	S	16	61
Barcelona	F	17	63	Florence	S	18	64	Manchester	S	10	50	Salzburg	S	19	66
Belfast	F	9	48	Frankfurt	S	16	61	Melbourne	F	19	66	S'Francisco †	C	9	48
Belgrade	S	19	66	Geneva	S	14	57	Mexico City	–	–	–	Santiago	–	–	–
Berlin	S	20	68	Gibraltar	C	17	63	Miami †	C	21	70	Seoul	S	11	52
Biarritz	S	23	73	Glasgow	F	7	45	Milan	S	17	63	Singapore	–	–	–
Birmingham	F	14	57	Guernsey	C	11	52	Montreal †	S	-1	30	Stockholm	C	16	61
Blackpool	F	10	50	Helsinki	S	11	52	Moscow	S	13	55	Strasbourg	S	17	63
Bombay	F	31	88	Hong Kong	S	21	70	Munich	S	18	64	Sydney	R	19	66
Bordeaux	S	18	64	Innsbruck	S	17	63	Nairobi	–	–	–	Tangier	S	20	68
Boulogne	F	15	59	Inverness	S	7	45	Naples	S	22	72	Tel Aviv	S	20	68
Bristol	R	11	52	Isle of Man	F	9	48	Nassau	–	–	–	Tenerife	S	26	79
Brussels	F	15	59	Istanbul	S	18	64	Newcastle	S	9	48	Tokyo	S	16	61
Buenos Aires	–	–	–	Jersey	C	13	55	New Delhi	S	30	86	Toronto †	Sn	-1	30
Budapest	S	19	66	Johannesburg	S	23	73	New York †	C	7	45	Tunis	S	20	68
Cairo	S	21	70	Las Palmas	C	24	75	Nice	S	17	63	Valencia	F	17	63
Cape Town	S	26	79	Leeds	F	11	52	Nicosia	S	21	70	Venice	S	19	66
Cardiff	R	12	54	Lisbon	S	18	64	Oporto	S	23	73	Vienna	S	19	66
Chicago †	C	-4	25	Locarno	C	17	63	Oslo	C	9	48	Warsaw	S	19	66
Cologne	S	19	66	London	C	13	55	Paris	S	16	61	Washington †	C	9	48
Copenhagen	S	12	54	Los Angeles †	Fg	12	54	Peking	–	–	–	Wellington	F	25	77
Corfu	S	21	70	Luxembourg	S	16	61	Perth	S	27	81	Zurich	S	14	57

C–Cloudy. Dr–Drizzle. F–Fair. Fg–Fog. H–Hail. R–Rain. S–Sunny. Sl–Sleet. Sn–Snow. T–Thunder.
† Noon GMT temperatures

FINANCIAL TIMES
COMPANIES & MARKETS
Tuesday March 20 1990

INSIDE

Simmons brushes up on Street cred

Trying to establish credibility with a sceptical Wall Street, Harold Simmons (left), the Texas investor, turned up in New York this week flanked by his nominees for the board of Lockheed. "I think I'll make all of us a lot of money," he drawled. His style contrasted sharply with that of Dan Tellep, Lockheed's chairman, who had canvassed the same shareholders in his quiet and methodical way a few days earlier. Page 21

Bad news dampens the good

Global equity markets were overshadowed but not routed by Japan last week. Tokyo's 5 per cent fall on the week left the FT-Actuaries World Index 1.25 per cent lower; excluding Japan, it would have been 1 per cent higher. Yet it was a solid week in Europe and a fat Friday on Wall Street, reports William Cochrane. Back Page

Headline entertainment

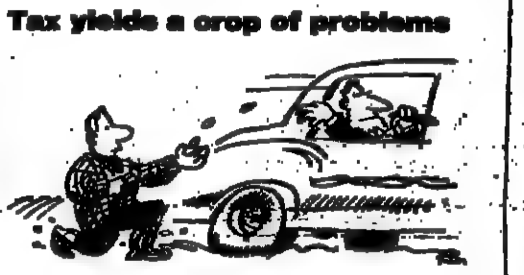
MTM

For months, newspaper headlines have had little good to say about TVS Entertainment. They have highlighted unexpected losses at MTM, its US production subsidiary, and the dive in the TVS share price that resulted. But things are looking up. For the first time, MTM has four series on US networks. Page 31

Looking to the futures

Managed futures funds have become popular in the US. But in the UK, where there is no regulatory structure, such funds have had to be located offshore to take advantage of rising interest in the commodity and financial derivatives markets. Yesterday, however, draft regulations were unveiled which could change this. Deborah Hargreaves reports. Page 28

Tax yields a crop of problems



Some wealthy landowners plan to pay the new community charge for their estate workers. Custom has been to allow farm employees who live in service houses to do so rent and rates free. With the introduction of the community charge all that will change, however, and ordinary farmers must decide how to deal with the new situation. Page 38

Market Statistics

Companies in this section

Chief price changes yesterday

FRANKFURT (DM)			
Rises			
Deckel	295	+	15
RWE	467	+	7.5
Siemens	805	+	21
Veba	464.7	+	9.5
Falls			
Babcock	840	−	22
Mannesmann Vers	845	−	11
NEW YORK ($)			
Rises			
Germany Fund	17¾	+	1⅛
UAL	153⅞	+	11⅞
Falls			
Barnett Banks	30¼	−	⅝
Scott Paper	11⅞	−	1⅛
Chevron	69⅞	−	1⅛
IBM	100⅞	−	⅞
PARIS (FFr)			
Rises			
Epeda	1340	+	41.3
Falls			
CMB Packaging	186	−	6.7
Ins. Martieux	3590	−	239
SCOA	32.6	−	2.3
Saulnes Ch.	301	−	14.3
Valeo	488.1	−	16.6
TOKYO (Yen)			
Falls			
Alps Kogyo	1280	−	330
Asahi Organic	1250	−	290
Co-op Chemical	920	−	200
Fudo Constr.	1030	−	200
Japan Paper	1050	−	200
Toyo Sugar	950	−	200
LONDON (Pence)			
Rises			
Guinness	564	+	4
Isosad	152	+	64
Falls			
Bass	936	−	16
Berisford	134	−	11
Brit. Aero	490	−	11
Cator	298	−	9
Enterprise Oil	605	−	7
Grand Met	327	−	10
Land Sec.	468	−	10
Lucas Inds.	613	−	7
MEPC	483	−	14
Rolls-Royce	183	−	3
Royal Insce	458	−	11
Southern Water	140	−	9
South West Wtr	158	−	11
Std Chartered	543	−	10
Tate & Lyle	282	−	9
Vickers	213	−	5
Water Pig.	1543	−	60

BP to cut 1,150 office jobs

Horton: "putting BP into the vanguard"

By Steven Butler in London

BRITISH Petroleum expects to save $500m a year in operating costs over the coming years when the full benefits are realised from Project 1990, a programme announced yesterday to reorganise its corporate headquarters and change management practices.

The savings include not only the 1,150 cuts in central office jobs announced yesterday but also earlier moves by BP Exploration and BP Oil to cut jobs and overheads.

The job losses at the central office are expected to result in up to 900 redundancies over the next year. Attempts will be made to find jobs within the group for some employees.

Mr Robert Horton, who was appointed chairman last week, said the programme was not so much a cost-cutting exercise as an effort to improve the management of BP by reducing complexity and changing corporate style.

"Corporations which achieve the greatest success will be those which are prepared and able to respond rapidly, flexibly and imaginatively," he said. "We want to put BP into the vanguard." He said BP would face an increasingly dynamic environment in the 1990s, one which demanded flexibility.

The programme will lead to wholesale abolition of central office committees, replacement of central office departments by small, flexible teams, and the decentralisation of investment authority through BP's four business divisions: exploration and production, oil marketing and refining, chemicals, and nutrition. The broad aim is to simplify and speed up decision processes while vesting greater responsibility with individual managers.

The changes also reinforce the operational supremacy of the business divisions, while relegating regional centres in the US and Europe to non-operational corporate roles. Regional headquarters in Cleveland, Ohio, and Brussels will focus on strategy and represent the BP group.

Of the job losses, 540 will come in information systems, while 400 will come in maintenance and cleaning staff.

One hundred and sixty jobs will be cut from BP's corporate centre which employs 540 staff, while an additional 40 out of 280 jobs will be cut from corporate services.

Taking into account 300 jobs which will be transferred to the businesses, rather than eliminated, BP's central office staff will be cut by almost 60 per cent to 1,050.

BP is merging the consumer-oriented parts of BP Chemicals and BP Nutrition to form a consumer products division and create a centre of marketing skill. The group will also appoint a chief financial officer, Mr Steve Ahearne, who will report to Mr David Simon, the chief operating officer.

Lex, Page 18

Tokyo bears break a golden honey pot

Richard Waters on Japanese equity warrants in retreat

While most of London's securities markets have yielded little in the way of profits for securities firms recently, in one corner it has been possible to earn a more than comfortable living: the market for Japanese equity warrants.

The golden days of this market now appear to be over – with potentially far-reaching implications for a number of securities firms that have thrived there in recent years. This raises questions, in particular, for those non-Japanese firms which have been using their bloated margins from warrants business to subsidise their less profitable operations.

Equity warrant issues are low-coupon bonds with warrants attached which give the right to buy a company's shares at a given price in three, four or five years' time. They have been popular with Japanese borrowers, who have been able to raise funds cheaply by issuing dollar-denominated warrants in London (they cannot do this in Tokyo) and then swapping into yen.

As long as this opportunity exists, borrowers are likely to continue to use London – although the Tokyo authorities have been concerned about the risks to which Japanese investors are exposed by dealing in the offshore market. Their response, a requirement for all trades carried out during Japanese business hours to be channelled through the Japan Bond Trading Co, is unlikely of itself to cause much damage to the London market.

Japanese equity warrants have also been popular with investors, in recent years particularly retail investors in Japan, who have been attracted during Tokyo's prolonged bull market to a geared instrument which has offered magnified profits as equities have risen.

And they have been popular – very popular – with the securities industry. Underwriting and trading warrant issues has been among the most profitable businesses around – so much so that when the financial years of Japan's four biggest securities houses close at the end of this month, about a quarter of their gargantuan profits will have come from warrants. For the rest, the crumbs that fall from the Japanese houses' tables are still enough to provide a good living, and certainly have provided a better business than chasing around for business in the over-crowded UK equity market.

Trading margins have been high, in spite of the size of the market – an average of 2 per cent, according to one estimate, or ten times the margin a firm might expect in other markets of comparable size.

It has been a profitable gravy train, with many riders: US investment banks, principally Morgan Stanley, Salomon and Goldman Sachs; British merchant banks Baring Securities and Robert Fleming, which were among the first into the market in the mid 1980s and so established a strong foothold; and others, including Barclays de Zoete Wedd, James Capel and, more recently Kleinwort Benson.

None of those in the market disclose their earnings, but all speak of the enormous wealth generated last year as the Tokyo market soared and new issue business reached $70bn.

"It beats fiddling around in ICI to get a small commission off the Pru," says Mr Diarmid Kelly of Baring Securities in London. Baring's profits more than doubled last year to £65.9m ($107m) – thanks largely, say competitors, to the warrants business.

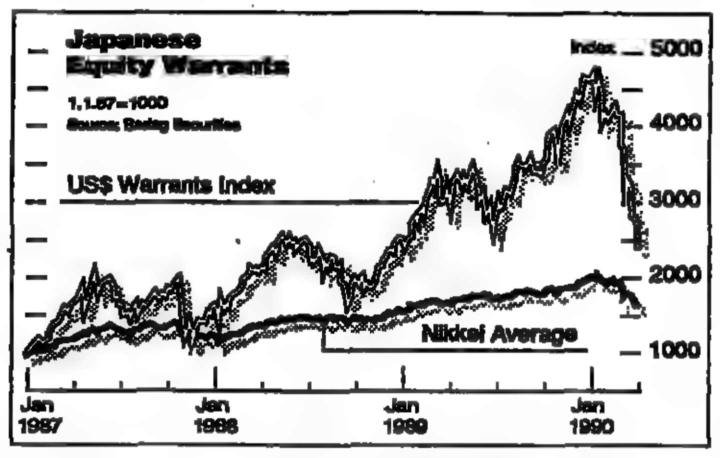
The slide in Japanese share prices has knocked the momentum out of the market almost overnight. New issues business in London is now projected to reach less than a third of last year's peak, forcing further redundancies in the industry.

Speaking just ahead of the current downturn, Mr Christopher Heath, managing director of Baring Securities, predicted that the warrants market boom had another two or three years to run. Things have moved on faster than he expected.

One important result has been a sharp fall in the underwriting commissions earned by Japanese securities houses in London. Daiwa, the second biggest, estimates that commissions have halved since last year.

Securities firms in London were yesterday sounding philosophical about the sudden reversal. According to Mr James Fergusson, a deputy chairman of James Capel, an agency broker in warrants: "One by one the honey-pots are disappearing. This was one of the largest and last. But we didn't believe it could just carry on for ever."

Capel, which last year managed to scrape into profit after two tough years, reckons that not being a marketmaker, it will suffer less from the downturn than others. The marketmakers themselves, meanwhile, are silent about the losses they may have suffered.



Robert Fleming is likely to be more severely affected. According to one director, who refused to be named: "Our levels of profitably in the business have been very good. Much of that froth will be coming out of our profit and loss account over the next 18 months or so."

Others may have less of a stake in the market, but still stand to suffer from the downturn. Kleinwort Benson, for instance, has spent two years building the technology and skills to get involved in warrants. That investment is unlikely to yield a return for some time to come. According to Mr Charles Hue Williams, joint head of securities: "Obviously these are very difficult conditions. But we are in here for the long-term."

Baring is likely to be the British house most affected by the downturn in the market. It has grown rapidly on the coat-tails of the Japanese equity market, which accounts for 75 per cent of its income. Staff numbers have shot from 15 to 800 in less than six years, and Mr Heath, whose salary passed £2.5m in 1987, has become one of the UK's most highly-paid executives.

Much of the group's success is due to its early entry to the warrants business in 1985. Its strategy has been to use its cashflow from Tokyo to diversify into Hong Kong and the other emerging markets of South East Asia, having entered both Singapore and Thailand within the last year. It has also dipped a toe into continental European equities. However, it claims that there is life beyond warrants. According to Mr Heath, for the fleet of foot there are always new and profitable products to be developed and sold.

After warrants, he says, will come stock options, and synthetic instruments stitched together out of derivatives. "It's a very fast-moving game," he says.

There are some in London who claim the Japanese equity warrant has a strong future. They argue that such a massive market could not disappear overnight, even though the excesses of the bull market have passed. But all agree that the bonanza years are over, and that this particular stream of income, on which many other parts of securities houses' operations have depended, is unlikely to flow as fast again for some time.

Market report, Page 36 28

Pechiney purchases TPI for FFr1.45bn

By William Dawkins in Paris

PECHINEY International, the packaging subsidiary of the French state-owned aluminium company, is to pay FFr1.45bn ($253m) for Techpack International (TPI), a leading producer of luxury packaging for perfumes and cosmetics.

This is Pechiney's first significant step into the luxury goods industry and an unusual mixture of management buy-out and outside bid. It is believed by both sides to be among the first takeovers of this kind in France.

Eurocom, the advertising and public relations group, is selling its 62 per cent stake in TPI as part of its strategy to focus on core businesses. Pechiney, meanwhile, has been keen to increase its exposure to the sector since becoming the world's largest packaging company with the 1988 takeover of America National Can. The purchase price represents 26 times TPI's earnings last year, the latest sign of the increasing value of independent packaging companies in an industry where the top players are fighting harder than ever for market share.

Initially, Pechiney will buy all of TPI's shares. It will then resell 17 per cent to the management, 44 per cent to LBO France, the Paris-based buy-out specialist, and keep 39 per cent. TPI's management already owns 7 per cent of the group. It chose Pechiney in preference to rival offers from CMB Packaging, the Anglo-French group, and Alusuisse of Switzerland.

TPI, which made a FFr60m net profit on sales of FFr1.1bn last year, is a leader in the FFr7bn US and European market for cosmetics and perfume packaging. It claims to be the largest producer of boxes, mascara cases and pots in those markets. Main customers include l'Oréal and Estée Lauder, Procter & Gamble, Unilever, LVMH and Guerlain.

After the initial purchase, TPI's capital will be restructured, with between FFr350m and FFr500m of equity – the exact figure is to be decided in the next few weeks. The balance of the acquisition price will be transformed into TPI debt.

Whatever the final structure, the group will end up highly leveraged with a significant management stake. It will be like a typical management buy-out but with a big difference – Pechiney will be the largest single shareholder. LBO France's 44 per cent stake will go into buy-out funds held mainly by institutional investors.

Background, Page 20

Condor makes offer for UAL

By Anatole Kaletsky in New York

UAL, the parent company of United Airlines, yesterday received a bid worth over $175 a share from Condor Partners, the Wall Street corporate restructuring specialist. Condor, UAL's largest shareholder, made the offer in conjunction with three unions representing United's main employee groups.

The unions – covering pilots, machinists and flight attendants – have agreed to significant contract concessions, and to legally binding no-strike clauses as part of the proposed deal.

After the takeover, the airline would be restructured as the largest employee-owned company in the US, with workers controlling 75 per cent of the equity through an Employee Stock Ownership Plan. The other 25 per cent of the equity would remain in the hands of UAL's present shareholders.

Under Condor's proposal each share of UAL would be exchanged for $150 in cash, plus $25 nominal value of 15 per cent debentures. In addition, each shareholder would receive one share of non-voting common stock in the restructured company.

These non-voting shares would constitute 25 per cent of UAL's equity after the reorganisation. The other 75 per cent would be owned by the ESOP, which would raise bank borrowings to make the $150 a share cash payments to the old shareholders of UAL.

Mr Paul Tierney, a general partner of Condor, said a bank syndicate was being put together to finance the cash element of the offer, although no commitments had been issued yet. He said he did not anticipate any difficulty in finalising the financing, provided Condor and the unions could win the support of 50 per cent of UAL's shareholders for their plan.

This is formally being submitted as part of a proxy battle to oust UAL's board at the company's next general meeting on April 26. After replacing the board with their own nominees, the unions and Condor would be able to complete the buy-out in a matter of months, according to Mr Tierney.

Mr Tierney confirmed the present board had not been prepared to back Condor's proposal, largely because of the opposition of UAL's chairman Mr Stephen Wolf. "The board has attempted to act in good faith, but they have been hindered by the bad chemistry between Steve Wolf and the unions," he said.

Mr Tierney also indicated that Condor's main interest in the offer was to recoup a "good price" on the UAL shares they already owned. The average acquisition price of Condor's 12 per cent stake was about $160 a share, he said.

The bid announced yesterday bore some resemblances to the $300 a share or $6.5bn offer presented last year by the company's management and pilots' union. However, several critical differences encouraged hopes that this bid might succeed despite the disastrous collapse of the initial offer. The most important difference was simply the price. Even the most enthusiastic takeover speculators on Wall Street agreed in retrospect that last year's $300 a share offer was absurdly overpriced.

Tate haggles with Berisford

By Clay Harris, Consumer Industries Editor

TATE & LYLE and Berisford International yesterday were jockeying for advantange after confirming their mutual interest in finding acceptable terms for a merger which would create a UK monopoly producer of sugar.

The two companies have been discussing a possible combination for several months, initially on narrow commercial grounds. The subsequent emergence of problem investments at Berisford, which owns British Sugar, has altered the context.

Berisford's troubles have given Tate, the world's largest sweeteners group, an unexpected second chance to buy control of the beet processor which dominates the UK sugar market. An initial bid in 1986, along with a rival offer by Ferruzzi of Italy, was blocked by the Monopolies and Mergers Commission.

Tate, a cane refiner, believes the political climate is now more conducive to its argument that the sugar market has to be considered on a European basis. It argues that the threat of imports would inhibit over-charging.

Could a Tate-Berisford merger avoid a Monopolies referral? "I can't imagine it – I believe it's got to be referred," Mr David Lang of Henderson Crosthwaite said yesterday. He noted, however, that the previous report left open the possibility that a merger might be countenanced under certain conditions.

With their courtship now public, the two companies yesterday were haggling over the dowry.

Tate, headed by Mr Neil Shaw, said it would have to be "satisfied as to the value and status of Berisford's non-sugar interests" before it made any offer. It has begun an independent investigation of these investments.

The statement helped to send Berisford shares 11p lower to 134p to value the company at £645m. British Sugar on its own could be worth more than £1bn.

Tate's shares also suffered, losing 9p to 282p because of concern about a possible rights issue and about exposure to Berisford's troubled peripheral activities.

Lex, Page 24

Former Pepsi-Cola chief dies

By Anatole Kaletsky in New York

MR WALTER S Mack, who made Pepsi-Cola into the world's second-biggest selling soft drink, died in New York on Sunday at the age of 94.

Mr Mack became the first president of the reorganised Pepsi-Cola company in 1938 after it was spun off from a New York sweets manufacturer, Loft's Inc. At the time the company's main business was selling syrup to soda fountains, rather than bottled soft drinks directly to the customers.

It had been bankrupted by its North Carolina founder and its trademark had bounced around Wall Street several times in deals which were the 1920s precursors to leveraged buy-outs. Mr Mack's key innovation was to sell Pepsi in bottles twice the size of Coca-Cola's containers for the same five cent price. In the austerity of the Depression this half-price marketing approach proved an instant success.

After stepping down as president in 1951, he ran the Nedick's hot dog chain. In 1978, at age 82, he launched King Cola, but his company, King Cola, was forced to file for bankruptcy, after failing to break the oligopoly controlled by Coca-Cola and Pepsi.

Pechiney wraps up Techpack deal

William Dawkins on a packaging group's move into new territory

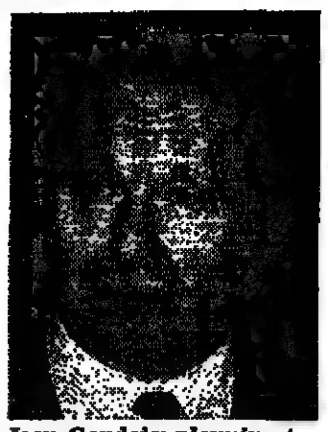
The latest acquisition by Pechiney, the aluminium producer which is also the world's largest packaging group, takes the French company into new territory.

No sooner did Pechiney complete the FFr1.45bn ($253m) takeover, unveiled yesterday, for Techpack International (TPI), the leading producer of packaging for up-market cosmetics, than it plans to sell back a hefty slice of the company to its management, leaving the aluminium giant as large minority shareholder. Never before has Pechiney run a takeover on these lines, very unusual across the French corporate scene.

TPI's executives demanded a significant share stake in their FFr1.1bn turnover group as a condition of the deal. The fact that they got their way, with the blessing of Eurocom, the advertising and public relations group which owns most of TPI, says much about the more open management thinking to have crept into France's top boardrooms recently.

"We were not just going senselessly for 100 per cent control. The basic motivation is to have a motivated management that participates in the ownership," said Mr Lean-Lous Vinciguerra, Pechiney's finance director.

Mr Alain Chevassus, TPI's chairman, added: "We wanted to preserve two magic words; identity and future development – things we have fought hard to preserve over the years."



Jean Gandois: planning to remain big in packaging

Pechiney International, the subsidiary which embraces the group's packaging interests and which is making the acquisition, will end up with 39 per cent of TPI, making it in principle the deciding shareholder, and TPI's managers will have 17 per cent, enough to let them block decisions they do not like.

The remaining 44 per cent will go to LBO France, the buy-out specialist which drew up this plan for what it called an unusual example of an "industrial management buy-out." LBO France will be parcelling out its stake among institutional shareholders in its buy-out funds.

However as is the way with new methods of doing things, this has its risks. Analysts were yesterday sceptical whether Pechiney is paying too much – around 26 times last year's earnings – for a company over which it will not have total control, at least for the first four years, after which either side can sell out if circumstances change.

Mr Vinciguerra said TPI's net profits were forecast to rise from FFr60m last year to FFr70m in 1990, bringing the p/e down to more like 20.

Also the cash recouped from the resale of TPI shares would eventually reduce the cash outlay to less than FFr1bn, depending on how much capital the partners agreed should be put into the new TPI.

Nobody can measure the value to Pechiney of having won TPI against competition from CMB Packaging, the Anglo-French group formed two years ago from the merger of Carnaud and Metal Box, and Alusuisse of Switzerland.

Apart from depriving competitors of market share, TPI's attraction to Pechiney is to give the group its first real exposure to the luxury goods industry, where TPI's main customers are l'Oréal, Estée Lauder, Moët Hennessey-Louis Vuitton and Guerlain, in a market worth an estimated FFr7bn in Europe and the US.

Cosmetics packaging sales are growing twice as fast – up to 8 per cent – as the products alone, due to growing demand for high-quality packages, Mr Chevassus said.

This continues the strategy behind Pechiney's takeover of America National Can (ANC) more than a year ago, as a result of which the group now makes more than 36 per cent of its sales – FFr32bn out of FFr87.8bn last year – in packaging.

Mr Jean Gandois, Pechiney's chairman, said the purpose of staying big in packaging was to counterbalance the group's exposure to aluminium price changes, for packaging profits margins should rise as the price of aluminium falls.

TPI's main raw material is plastic, so its role is different. The move continues Pechiney's general diversification in into packaging, which is being criticised for being costly, just as the ANC deal was at the time. Subsequently ANC has looked better value for Pechiney. Only time will tell if Mr Gandois' team have made the right judgment for TPI.

KKR buys Drexel's RJR stake

By Janet Bush in New York

KOHLBERG Kravis Roberts, the buy-out specialist, has bought a 3.9 per cent stake in RJR Nabisco from Drexel Burnham Lambert for $51m.

This transaction brings KKR's stake in RJR Nabisco, which it took private a year ago for $25bn, to 58 per cent. Drexel advised KKR on the leveraged buy-out and was the lead underwriter on $5bn of bond sales used to finance the deal. Drexel's equity position in RJR was built up in the course of underwriting the bonds.

A Drexel spokesman said that the KKR price was a good one. The purchase price of Drexel's stake was the same as the cost of RJR shares at the time of the leveraged buy-out and values RJR at $1.28bn. The spokesman could not confirm whether Drexel had sold any other equity stakes in companies since its parent company filed for protection from its creditors under Chapter 11 of US bankruptcy law last month.

KKR bought the stake from Drexel with cash from the same buy-out partnership which originally invested in the RJR deal.

RJR Nabisco reported a loss in 1989 of $1.15bn, against a $1.4bn net profit in 1988.

Minorco wins ruling to do business in US

By Kenneth Gooding, Mining Correspondent

A NEW YORK judge has ruled that Minorco's South African links should have no bearing on its ability to do business in the US.

The decision is important for Minorco, the Luxembourg-quoted investment company which is 60 per cent owned by the Anglo American-De Beers group of South Africa, because its $3.5bn bid for Consolidated Gold Fields of the UK foundered last year in the US courts.

As a result of the Gold Fields' decision it was widely assumed that the US would be "off limits" to Minorco because the company would face a battle in the courts about its South African parentage should it attempt a takeover there.

This did indeed happen – over an agreed $705m offer for the Freeport McMoRan Gold company. Asarco, the US copper company, complained to the court last week that Minorco's South African connections would imperil $5.5m of US government funding towards an experimental copper project at Santa Cruz, Arizona, in which Asarco is involved with Freeport Gold.

However, New York Supreme Court Judge Myriam Altman, dismissed Asarco's application for a preliminary injunction restraining Freeport McMoRan selling the gold company to Minorco.

She said the claim was "speculative" and added: "There is no indication at this time that the joint venture would lose its government funding because South Africans own a controlling interest in Minorco."

Minorco expects to complete the acquisition of Freeport Gold on Friday which will bring it closer to achieving its objective of becoming a significant international natural resources group.

It will still have about $1.8bn left in its cash chest for more acquisitions and some analysts suggest Minorco aims to build on the Freeport deal to become a substantial gold producer in North America. That would not have been possible if there had been an adverse decision in the New York court.

Pemex sales rise sharply as value of exports leaps

By Richard Johns in Mexico City

SALES of Petroleos Mexicanos (Pemex), the state oil corporation, rose sharply last year.

The group saw sales advance by more than 30 per cent in 1989 to 35,440.6bn pesos ($13.39bn at the year-end exchange rate) compared with the previous year.

The increase was largely due to a rise in the value of exports. These were worth 18,629bn pesos, an advance of nearly 40 per cent over the level recorded for 1988, in spite of a decline in the volume of shipments.

Pemex had already announced that in dollar terms its crude oil sales last year brought in foreign exchange earnings of $7.28bn, against $5.84bn in 1988.

Exports declined by 2.2 per cent from 1.3m barrels a day to 1.27m b/d because of increasing domestic demand. At the same time Pemex recorded a deficit in its trade in petroleum products of 299,889bn pesos, after generating a surplus of 208,579bn in 1988.

Reflecting the steep increase in domestic consumption and the inability of Pemex's refining capacity to meet demand, imports of gasoline rose from just under 6,000 b/d in 1988 to 77,360 at a cost of 258,473.1bn pesos. Those of fuel oil amounted to 190,459 b/d worth 356,065bn pesos, up 17 per cent over the previous year.

Altogether Pemex contributed 29,418bn pesos to the Ministry of Finance in taxes, a rise in real terms of about 5 per cent over the 1988 level. At a ceremony held at Minatitlan in the state of Vera Cruz Mr Francisco Rochas, director-general of Pemex, said its payments to the Government amounted to 31 per cent of federal revenue.

The corporation, which has experienced a desperate shortage of investment funds, was allowed to retain 11,049.6bn pesos of its tax liabilities, a 6 per cent fall in real terms.

INTERNATIONAL COMPANIES AND FINANCE

Nobel rises 33% despite decline in armaments

By John Burton in Stockholm

NOBEL Industries, the Swedish armaments-to-chemicals conglomerate, yesterday reported a 33 per cent rise in profits after financial items to SKr1.24bn ($202m) in 1989 from SKr934m, exceeding its forecast of SKr1.1bn.

The board proposed raising the dividend to SKr4 per share from SKr3.25 and offered a bonus issue of one new share for each old share.

Earnings after extraordinary items amounted to SKr1.68bn, reflecting the sale of assets in Gamlastaden, an investment company, prior to its bourse introduction. Turnover increased by 3.5 per cent to SKr22bn from SKr21.3bn.

Bofors, the armaments division, the group's second largest business area with SKr5.6bn in sales, reported a 21 per cent fall in profit to SKr214m due to restricted defence spending in Sweden and declining export orders. Bofors plans to sack 500 employees by mid-1990, following the dismissal of another 1,300 workers last year.

The pharmaceutical chemicals and explosives division also reported a profit drop of 48 per cent to SKr36m. The remaining business areas showed steady or improved earnings. The adhesives and paints sector remained the group's biggest and most profitable division with SKr6.6bn in sales and unchanged earnings at SKr405m.

Georg Fischer advances 46%

GEORG Fischer, the Swiss machinery maker, boosted group net profit by 46 per cent last year to SFr73m ($48.7m) from SFr50m the year before, writes Our Financial Staff.

It plans a dividend SFr50 a bearer share, up from SFr40 the previous year, and SFr10 a registered share and participation certificate, up from SFr8.

Group sales increased 12 per cent to 2.5bn.

Fischer also plans a rights issue, raising its capital by a nominal SFr25m.

Salzgitter earnings nearly quadruple as orders hit record

By Our Financial Staff

SALZGITTER, the West German steel and engineering group which was acquired last year by Preussag, nearly quadrupled 1988-89 group net profits to a record DM340m ($200.5m) from DM90m a year earlier, with most of the rise coming from steel production.

Salzgitter's annual report for the year ended September said all divisions were in good shape and business had continued on a positive note in the first months of the current financial year.

Profits from domestic steel trading and scrap steel trading were satisfactory, while earnings from the industrial plant division, environmental technology and engineering services rose from 1987/88. It did not specify the profits.

Salzgitter's parent company net profit rose by DM140m to DM268m, with the distributable profit rising to DM254m. The management board will propose to the annual shareholders' meeting that DM51m be transferred to the West German government, the previous owner of Salzgitter. The balance will be transferred into company reserves.

Orders in hand by the end of 1988-89 reached a new record at DM8.9bn, 24 per cent higher than at the same time the year before. All divisions had high order levels, especially shipbuilding which has orders lasting to 1995.

Salzgitter said group net profit in the current year should at least reach last year's DM340m.

Mr Ernst Pieper, management board chairman, said he did not expect business in the current year to be worse than in the year ended September 30 1989.

Mr Pieper also said the joint management board of Salzgitter and Preussag had been working on fusing the two companies since the beginning of this year, but he could not provide details of the plan.

Preussag took control of Salzgitter on October 1 1989.

Hafslund plans disposal

HAFSLUND Nycomed, Norway's second largest publicly quoted company, has signed a letter of intent to sell Hafslund Metall, its metals unit, to Norway's Ila and Lilleby group, a privately-owned producer of ferro-silicon based in Trondheim, writes Karen Fossli in Oslo.

The sale has been expected, as it would allow Hafslund to concentrate on its promising medical business, centred around X-ray contrast media.

In 1989 Hafslund Metall increased its operating profit to NKr78m ($11.9m) from NKr68m a year earlier. Ila and Lilleby is one of Hafslund's two partners in the Fesil group, an international metals marketing company.

The disposal would include a ferro-silicon production plant in Skjeberg, southern Norway; a 30 per cent stake in Rana Metall, a newly established ferro-silicon plant located in northern Norway and Hafslund Ltd, a Sheffield-based metals production and trading company.

LVMH denies reports

MANAGEMENT of LVMH, Moët Hennessy-Louis Vuitton, responding to a report that the French luxury group plans soon to double its 12 per cent stake in Guinness, accused Mr Henry Racamier, chairman of Louis Vuitton, of spreading "falsehoods" about "secret agreements," AP-DJ reports.

LVMH said it "categorically denies any secret accord between Guinness" and LVMH.

Guinness and LVMH have a cross-shareholding accord under which LVMH has the right to increase its holding in Guinness to up to 24 per cent. LVMH said no decision has been made on this option.

MoDo rises 8%, warns of slack year ahead

By John Burton

MODO, Sweden's third largest pulp and paper company, yesterday reported that profits after financial items rose by 8 per cent to Skr 1.7bn ($279.8m) in 1989, but it warned of declining earnings in 1990. It proposed that the dividend be increased to SKr12 per share from SKr10.

Echoing forecasts made by other Swedish forestry concerns, Mr Bernt Lof, president, said climbing production costs in Sweden and a weaker market for fine paper, newsprint and pulp would result in lower profits this year.

He noted that demand was already falling in the last few months of 1989. But the market for sawed timber and paperboard, MoDo's other product areas, remains bright, he added.

Turnover fell by 4 per cent to SKr18.7bn after the sale of the consumer products division Holmen Hygiene to Metsa-Serla of Finland last March.

MoDo's pulp division, MoDo CellKraft, saw operating profits climb by 40 per cent to SKr1.4bn on sales of SKr6bn. Its paperboard division, Iggesund Paperboard, reported a profit rise of 24 per cent to SKr357m on sales of SKr3.2bn. Newsprint and fine paper divisions suffered falls in profits because of over-capacity.

MoDo's debt load, which grew in the late 1980s when it acquired Iggesund and Holmen, was reduced by SKr1.5bn to SKr6.4bn due to the sale of Holmen Hygiene and its interest in Duni, another paper products company.

Hersant buys into Grupo 16

MR ROBERT Hersant, the French media magnate, has bought 15 per cent of Grupo 16, one of Spain's largest newspaper publishers, and 35 per cent of Diario 16, Grupo 16's main daily newspaper, writes Peter Bruce in Madrid.

Mr Hersant reached agreement with Grupo 16 last week, following his hostile bid for 32 per cent of the Spanish group's holding company last year.

Battle of styles to win Lockheed

Roderick Oram on contenders for control of the US aerospace group

Trying to establish his credibility with a sceptical Wall Street, Mr Harold Simmons, the Texas investor, turned up in New York last week flanked by a dozen or so of his nominees for the board of Lockheed, the US aerospace group.

"A lot of you don't know who I am or what I done," he drawled to analysts and institutional investors. To help enlighten a later press conference, aides plastered the room with large logos of companies he controls. With a total market capitalisation of $2.8bn their businesses range from sugar and lumber to chemicals and oilfield services.

The one common thread, Mr Simmons said, was that he had no knowledge of those troubled companies when he bought into them, yet he had still pulled off spectacular turnrounds to the benefit of shareholders. If he wins control of Lockheed's board at its March 29 annual meeting, "I think I'll make all of us a lot of money."

In contrasting style, Mr Dan Tellep, Lockheed's chairman since last autumn, had canvassed the same shareholders a few days earlier.

An acclaimed missile engineer and 34-year Lockheed veteran, he came with a couple of key colleagues to lay out in his quiet way the year-old recovery plan which he believes will return Lockheed to respectable profits this year.

With analysts hard pressed to find much substantive difference between the two men's vision for Lockheed, style is an issue in the fight.

Mr Simmons, under investigation by the Securities and Exchange Commission for some of his Lockheed activities, says only his superior strategic skills and tough management techniques can shake up Lockheed's entrenched management. A victory would help establish proxy fights as the takeover tactic of the 1990s, he says.

His true aim is simpler and more personal, many on Wall Street still believe. He wants to peel himself away from Lockheed at a profit. He has built up a 19 per cent stake in Lockheed which "is about all I want to risk" on the company, he told the New York gathering.

But he is showing a paper loss of some $100m on the investment because the share price has plunged in the wake of Mr Tellep's restructuring programme.

So far though, Wall Street has failed to rise to Mr Simmons promise of better management. Lockheed's stock has barely budged from the 52-week low of $33⅝ it hit shortly before Mr Simmons announced his proxy fight. At lunchtime yesterday it was trading at $35⅝.

Some of Lockheed's problems are its own and others are shared with the defence industry. Deriving three-quarters of its revenues from government contracts, it is fighting for its share of a shrinking defence pie.

Several of its big white hopes such as the Advanced Tactical Fighter are threatened with the axe. Its revenues fell to $9.89bn last year from a high of $11.08bn in 1987. Its order backlog is down to around $7bn from over $9.5bn.

In common with other defence companies it has taken a bath on fixed price contracts. Last year it wrote off $490m of costs it could not recover on five programmes it had seriously misjudged, particularly a new anti-submarine aircraft. The charges helped knock its net profit down to $2m from $624m a year earlier.

Mr Tellep says the write-offs and cost cutting measures will allow Lockheed to make healthy profits in coming years from its defence contracts which earned $714m last year before the charges.

He feels frustrated by Lockheed's image as an aircraft builder since it derives half its revenues and 60 per cent of its profits from missiles and other space programmes, areas it believes will keep it busy and profitable in the 1990s. Aircraft, though, present Lockheed with some of its headaches and, it believes, some of its opportunities.

Lockheed's long and hugely profitable programme to build C-5B heavy military cargo aircraft ended last year. Moreover, McDonnell Douglas recently dropped it as the wings subcontractor for the new C-17 military transport aircraft. Mr Tellep says he was happy to give up the $1bn of work a year because Lockheed could not make money on it.

Seeking more civilian aircraft work, Lockheed is trying to build up an aircraft conversion business and bid for more subcontract work, most notably from Boeing. But Lockheed is not yet cost competitive on commercial work after years of high military overheads, analysts and civil contractors say.

Mr Tellep says that is not true. "If there's a difference in cost it's not because of our productivity but because of complying with military regulations."

Mr Simmons says Lockheed should concentrate on its core defence businesses, such as missiles. He and Mr Landis Martin, his chief operating officer, seem to have scant knowledge of the aircraft opportunities, particularly on the civilian side, but anyway consider Lockheed should minimise its efforts in the sector.

He is also highly critical of Lockheed's diversification efforts in technology services and electronics, two areas which Lockheed has tied up about half its assets with minimal return. If he could not turn them round quickly, he would sell them.

Certainly Lockheed's purchase in the mid-1980s of Sanders, an electronics group, still looks a poor bet, and Lockheed paid $1.2bn, or 1.4 times its sales.

Mr Tellep says the newly consolidated electronics operations, some of which had been working at only 20 per cent capacity, should become much more profitable. They and other activities outside military aerospace are crucial to his strategy of reducing the government's share of Lockheed's business to about 65 per cent in the next four or five years, he says.

Overall, Mr Simmons' plan comes down to scything costs and wringing maximum profits from Lockheed's core but flat military businesses. Mr Tellep is offering shareholders the same rigorous cost control plus the hope of some growth along non-military avenues.

Some 120 institutional investors hold 45 per cent of Lockheed's stock. Mr Simmons needs to win 51 per cent of the vote to get his slate elected. But as the meeting nears in a Lockheed aircraft hangar at Burbank, he still faces an uphill battle.

Banca Populare seeks KPMG asset freeze

By Haig Simonian in Milan

THE simmering row between Banca Populare di Milano, one of Italy's biggest co-operative banks, and KPMG Peat Marwick Fides, the Italian partnership of the international accountancy and consulting group, broke out into full war yesterday with the bank's decision to seek a court order freezing the assets of KPMG's Italian unit.

The friction between the two sides centres on Istituto Milanese Leasing (IML), a small leasing company in which the bank bought a 57 per cent stake for L27.5bn ($22m) in November 1988.

Banca Populare now claims that KPMG, which audited IML's accounts, did not realise that its assets were overstated by as much as L85bn. Meanwhile, IML's parent company went into receivership last year and is now being liquidated.

KPMG declined to comment on the bank's latest move, which it said it had only discovered through the press. The firm was consulting its lawyers, and would respond accordingly thereafter, said an official. A court is due to start hearings on the dispute on April 2.

The latest salvo follows a bitter row last month, when the bank, which is run by Mr Piero Schlesinger, a tough ex-lawyer, made a legal claim for L120bn in damages against KPMG. The sum represented compensation for the overstated assets and loss of the bank's standing, it said.

INTERNATIONAL COMPANIES AND FINANCE

Stemming the flight of finance from Caribbean

Canute James on the West Indies capital market

The central banks in three Caribbean states have agreed to establish a fund to cover the first 18 months of the operations of a regional capital market being created by members of the Caribbean Economic Community (Caricom).

The capital market is being started by Trinidad and Tobago, Jamaica and Barbados, the three of the 13 community members which have national stock exchanges.

Regional central bankers, who have been given the responsibility for drafting the rules which will govern the operations of the capital market, have concluded that there is need for a fund of at least $11m to cover net transfers in the first 18 months.

The funds are needed to overcome one large problem in the creation of a Caribbean capital market. Cross-border settlements between the members of Caricom would be almost impossible because of the exchange controls maintained by the region's financially-strapped countries.

Consequently the central bankers have proposed that a viable start to the new capital market can be made only if the funds are set aside by Trinidad and Tobago and Jamaica, which will put up $5m each, with Barbados contributing $1m. "These figures represent an estimate of the pool of resources which would allow for trading." Mr Fernando de Peralto, deputy governor of the Central Bank of Jamaica, said. "The figures do not represent the likely value of total trade. Settlements would be on a net basis, meaning that credit and debit positions would be reconciled at agreed periods."

The creation of the regional capital market was approved nine months ago by Caricom's heads of government. The facility is regarded by some prime ministers as being beneficial to efforts to integrate the community's economies and assist in establishing a regional common market by 1993.

The Caricom governments also concluded that a capital market would increase foreign exchange and investment flow and that the facility would establish a basis for transactions equities, bonds, debentures, options and futures.

These new business opportunities, regional bankers argue, will offer alternatives for investment and stem capital flight which has been the bane of many Caribbean economies.

The first concrete step in the establishment of the regional capital market is likely to be the cross-listing of shares on the three existing stock markets. The bankers drafting the structure of the regional market have proposed that each participating country establishes a clearing house which would ensure that each vendor is paid in local currency.

But getting around the exchange control regulations is only one of the problems which has to be resolved before it can function effectively.

There are regulations which limit the ability of foreigners to hold stocks and other property in some countries. The Trinidad and Tobago government recently introduced legislation to relax restrictions against foreigners holding property. There are also disparities in company law in the members of Caricom, with no common regulations to cover mergers and takeovers, auditing and accounting and financial information disclosure.

The proposal for the regional capital market has received support from the private sector, which will run it, although it will be some time before the other members of the Caribbean community become involved. Regional business leaders say one way of involving countries without national stock markets is to allow the listing of companies based in them.

IMI boosts income by 16% despite UK inflationary pressure

By Richard Tomkins, Midlands Correspondent

IMI, the UK metals group that now specialises in building products, drinks dispensing equipment and fluid power, bucked the downturn in Britain's domestic economy and delivered a 16 per cent increase in pre-tax profits to £125.3m ($203.6m) for 1989.

The increase marked a deceleration from the 24 per cent profits increase at the half-way stage but was achieved in the face of inflationary pressures and high interest rates that are afflicting much of Britain's manufacturing industry.

Mr Gary Allen, managing director, said the main reason for IMI's ability to keep profits growing was its expansion in overseas markets which now accounted for 53 per cent of group sales.

Turnover passed the £1bn mark for the first time in 1989, rising 20 per cent from £902m to £1.08bn, and earnings per share were 14 per cent ahead at 25.2p. A final dividend of 5.7p is recommended, making 9.5p, compared with 8.15p last year.

The biggest profits contribution came from the fluid power division, incorporating Norgren Martonair, which makes pneumatic equipment for industry. This turned in trading profits of £35.9m, against £29.9m last year.

Mr Allen said disappointing results in the UK and a second-half softening in the US were outweighed by particularly strong demand on the Continent. A new manufacturing complex is being built near Stuttgart.

Next biggest contribution came from the building products division, which makes plumbing and heating fittings for the building trade.

This turned in trading profits of £25.5m, against £22.9m last year, with strong overseas sales and buoyant demand in Britain's industrial and commercial sector more than outweighing the weakness of the UK housing market.

Sir Eric Pountain, chairman, said no one could be immune to a deteriorating climate, but with balance sheet gearing at barely 5 per cent and the group's international spread, he was confident of progress.

Dresdner links with Meiji

DRESDNER Bank, West Germany's second largest financial institution, is stepping up co-operation with Meiji Mutual Life of Japan, writes Katharine Campbell in Frankfurt.

Meiji, which is the country's fourth largest life insurance company with assets of Y8.2trn ($53.8bn) and premium income of Y2.19trn at the end of March 1989, hopes to tap into the asset management skills of Dresdner within the European market, while the German bank wants to expand its profile in Japan and the rest of South East Asia through the association.

Koito 1.4m shares offer

KOITO Manufacturing is to offer 1.4m shares prior to the opening of trading on the Tokyo Stock Exchange today in a move aimed at increasing the number of its shareholders in order to comply with listing requirements, Kyodo reports from Tokyo.

The TSE said each subscriber would be allowed to purchase up to 1,000 shares. The shares, released by substantial shareholders in Koito and its affiliates, will be offered at Y3,030, or 2.25 per centlower than Monday's closing price.

The measure is designed to keep Koito listed on the first section since the company would be transferred to the second section unless it raises the number of its shareholders to at least the 3,400 required for first-section listing.

VOLKSWAGEN
Aktiengesellschaft
Wolfsburg
Stock Index Nos. 766 400/766 403

Rights Issue to Shareholders

In accordance with paragraph 4 section 4 of the Articles of Association, the Board of Management resolved on 12th February, 1990, with the approval of the Supervisory Board, to increase the share capital of the Company from DM 1,500,000,000 by DM 150,000,000 to DM 1,650,000,000 by the issue of new ordinary bearer shares of DM 50 each (nominal value). Holders of the new ordinary shares will be entitled to the dividend for the fiscal year 1990.

The new shares are offered by a bank syndicate managed by Dresdner Bank AG, Deutsche Bank AG, Commerzbank AG and Goldman Sachs International Limited to shareholders for subscription on the basis of one for ten and at the subscription price of DM 440 for each new share of DM 50 (nominal value).

The capital increase was registered in the commercial register on 9th March, 1990. Accordingly, the Company invites shareholders to exercise their subscription right during the period from 26th March to 9th April, 1990 (inclusive) against surrender of dividend coupon No. 28 of the old ordinary shares and dividend coupon No. 3 of the non-voting preference shares. A combination of dividend coupons of old ordinary shares and preference shares is possible. The following German and foreign banks have been appointed as subscription agents:–

in the Federal Republic of Germany:
Dresdner Bank AG; Dresdner Bank Berlin AG; Deutsche Bank AG; Deutsche Bank Berlin AG; Commerzbank AG; Berliner Commerzbank AG; Bank für Gemeinwirtschaft AG; Bayerische Hypotheken-und Wechsel-Bank AG; Bayerische Landesbank Girozentrale; Bayerische Vereinsbank AG; Berliner Bank AG; Berliner Handels- und Frankfurter Bank; DG Bank Deutsche Genossenschaftsbank; Deutsche Girozentrale — Deutsche Kommunalbank —; Hessische Landesbank — Girozentrale —; Merck, Finck & Co.; B. Metzler seel. Sohn & Co. KGaA; Norddeutsche Landesbank Girozentrale; Sal. Oppenheim jr. & Cie.; M. M. Warburg-Brinckmann, Wirtz & Co.; Westdeutsche Landesbank Girozentrale; Westfalenbank AG; Commerz-Credit-Bank AG Europartner; Deutsche Bank Saar AG;

in Austria:
Bank für Arbeit und Wirtschaft Aktiengesellschaft; Creditanstalt-Bankverein; Girozentrale und Bank der österreichischen Sparkassen Aktiengesellschaft; Österreichische Länderbank Aktiengesellschaft; Raiffeisen Zentralbank Österreich Aktiengesellschaft; Schoeller & Co. Bank Aktiengesellschaft;

in Belgium:
Banque Bruxelles Lambert S.A.; Générale de Banque S.A.; Kredietbank N.V.;

in France:
Société Générale;

in Great Britain:
Goldman Sachs International Limited; Credit Suisse First Boston Limited; Daiwa Europe Limited; Shearson Lehman Hutton International, Inc.; S.G.Warburg Securities;

in Italy:
Banca Commerciale Italiana;

in Luxembourg:
Banque Internationale à Luxembourg S.A.;

in the Netherlands:
Algemene Bank Nederland N.V.;

in Spain:
Banco Bilbao Vizcaya S.A.;

in Switzerland:
Schweizerische Bankgesellschaft; Schweizerische Kreditanstalt; Schweizerischer Bankverein.

For every ten ordinary shares and/or preference shares of DM 50 each (nominal value), one new ordinary share of DM 50 (nominal value) may be subscribed at a subscription price of DM 440, free of stock exchange turnover tax. The subscription price has to be paid upon the exercise of the subscription right no later than 9th April, 1990.

Subscription rights will be traded and officially quoted on the stock exchanges in Hanover, Berlin, Bremen, Dusseldorf, Frankfurt, Hamburg, Munich and Stuttgart during the period from 26th March to 5th April, 1990. The subscription rights will not be listed on The Stock Exchange in London but can be traded under Rule 535.4. The subscription agents are prepared to arrange stock exchange purchases and sales of subscription rights (Stock Index No. 766 408) on a best efforts basis. Commencing from the beginning of the subscription period, the old ordinary shares and preference shares will be traded "ex subscription right".

A bank fee will be charged on the subscription unless such subscription is effected against delivery of the dividend coupons at the counter of a subscription agent during the usual business hours and does not entail any further correspondence.

The new ordinary shares will be represented by global bearer share certificates deposited with the Kassenverein clearing system. Subscribers will be credited for their shares in a collective securities account with their depositary bank. It is not intended to print new share certificates because a sufficient number of printed certificates for old ordinary shares of the Company is available. Delivery of individual share certificates may not be requested until after the annual meeting of shareholders of the Company, scheduled to take place on 19th July, 1990. The new shares will have Stock Index No. 766 401.

The new ordinary shares are admitted to trading with official quotation on all German stock exchanges. The new ordinary shares are to be listed on the stock exchanges in Amsterdam, Antwerp, Basle, Brussels, Geneva, London, Luxembourg, Paris, Tokyo, Vienna and Zurich.

Procedure in the United Kingdom

Shareholders in the United Kingdom wishing to subscribe for the new shares must lodge dividend coupon No. 28 of the old ordinary shares and dividend coupon No. 3 of the non-voting preference shares together with a relevant lodgement form during the subscription period, 26th March to 9th April, 1990 (inclusive), at the office of the Company's London Paying and Listing Agent, where lodgement forms are available:—

S.G.Warburg & Co. Ltd.
Paying Agency, 2 Finsbury Avenue, London EC2M 2PA

or at the offices of the U.K. Subscription Agents to the share capital increase mentioned above on business days between 10.00 am and 3.30 pm. Payment must be made in full on application. Temporary Receipts will be issued.

Subscribers wishing to make payment in Sterling should agree the applicable rate of exchange with their respective agent.

Shareholders wishing to subscribe for new shares should obtain a copy of the listing particulars from the office of the London Paying and Listing Agent.

Wolfsburg, March 1990 — **Board of Management**

Stabilisation/SIB

Neither the new ordinary shares nor the rights to subscribe therefor have been registered under the United States Securities Act of 1933 and neither the new ordinary shares nor the rights to subscribe therefor are being offered or may be offered, sold or delivered, directly or indirectly, in the United States of America, its territories or its possessions (the "United States"), or to or for the account of nationals or residents of the United States, except under limited circumstances.

CANON INC

Advice has been received from Tokyo that the 89th Ordinary General Meeting of Shareholders of the Company will be held at the Head Office of the Company, 30-2 Shimomaruko 3-Chome, Ohta-Ku, Tokyo, at 9 a.m. on Thursday, 29th March 1990.

Matters to be Reported

Report on the business report, balance sheet and statement of income and retained earnings for the 89th business term (from January 1st, 1989 to December 31st, 1989).

Matters to be Resolved

Proposition:
Approval of the profit appropriation plan for the 89th business term.

Holders of Depositary Receipts of Bearer (EDR's and BDR's) wishing to exercise their voting rights in respect of the Shares represented by the Receipts held by them are reminded that, in accordance with Clause 8 of the Conditions, they must lodge their Receipts with Hill Samuel Bank Limited by 3 p.m. 22nd March 1990, or with one of the sub-agents by 3 p.m. 20th March 1990, where lodgement forms are available. Voting Rights may only be exercised in respect of Depositary Receipts representing Ordinary shares on the register as at 31st December 1989.

Copies of the full text of the Notice convening the meeting are available if required.

Hill Samuel Bank Limited,
45 Beech Street,
London EC2P 2LX.

NBD BANCORP, INC.
US$100,000,000
Floating Rate
Subordinated
Notes due 2005

Notice is hereby given that for the interest period 20th March, 1990 to 20th June, 1990 the interest rate has been fixed at 8 11/16%. Interest payable on 20th June, 1990 will amount to US$222.10 per US$10,000 Note.

Agent Bank:
Morgan Guaranty Trust
Company of New York
London

COMALCO FINANCE
LIMITED

US$100,000,000

Guaranteed Floating
Rate Notes due 1993

Notice is hereby given that for the interest period 20th March, 1990 to 20th June, 1990 the interest rate has been fixed at 8 9/16%. Interest payable on 20th June, 1990 will amount to US$218.82 per US$10,000 Note.

Agent Bank:
Morgan Guaranty Trust
Company of New York
London

INTERNATIONAL COMPANIES AND FINANCE

Mandarin silent on Accor as net profits rise 13%

By Angus Foster in Hong Kong

MANDARIN ORIENTAL, the Hong Kong listed luxury hotel arm of the Jardine Matheson empire, yesterday reported a 13 per cent increase in net profits to HK$392.8m (US$50m) in 1989, as a slowdown in local operations was made up by strong performances from the group's other hotels in Asia.

Turnover gained 4.5 per cent to HK$958.8m. Mandarin is recommending a final dividend of 28 cents per share which, combined with the interim dividend of 11 cents, makes a total distribution for the year of 39 cents, up from 34 cents last time.

But the company kept up its official silence on any future relationship with Accor, the French hotel group which claims to control 10 per cent of Mandarin's shares.

Mr Robert Riley, managing director of Mandarin, refused to discuss Accor's stake-building except to say the two sides have not been in contact. Mandarin is 46 per cent controlled by Jardine Strategic Holdings, in turn controlled by the Keswick family.

Accor says it does not want to buy Mandarin but might be interested in working together as part of the French group's expansion plans into Asia.

Mandarin's results, which were in the middle of market expectations, came despite a marked slowdown in the Hong Kong tourism and hotel industries after the crisis in Peking last June.

The company's two wholly owned Hong Kong hotels, including the Mandarin Oriental, the flagship, are likely to come under further pressure this year as three luxury hotels open in the colony.

But after a strong start to the year all the group's eight hotels saw improved turnover in 1989, according to Mr Riley, who took over running the group last year after the resignation of Mr Peter Tyrie.

Profits from Hong Kong and Macao, where the group has a 50 per cent share in the Macao Mandarin, made up 73 per cent of pre-tax profit, slightly lower that the 76 per cent last year.

Although the company gave no breakdowns on individual hotels, the Oriental Bangkok, Mandarin's 45 per cent owned hotel in Thailand, is thought to have had an excellent year, with average occupancies of 90 per cent or more. Mr Riley said The Oriental in Singapore was helped by what was described as a remarkable turnround in the island state's hotel industry.

But occupancy at the company's hotel in the Philippines was adversely affected by the December coup attempt and business at the Mandarin Oriental Hotel in San Francisco, where the group has the management contract, was interrupted by last year's earthquake.

Mandarin is involved in joint ventures to build luxury hotels in New Delhi, India, and Kuala Lumpur in Malaysia. The company also has a small equity share of a plan to redevelop a small hotel in Macao and Mandarin is also looking for a site for a hotel in Chiang Mai in Northern Thailand, Mr Riley said.

LO DEAL CLEARED

MR VINCENT LO, a prominent Hong Kong businessman, yesterday succeeded in his plan to take his last listed company private when he won the agreement of 99 per cent of minority shareholders in Shui On (Contractors), a small construction company, writes Angus Foster. Shui On Group, the 75 per cent controlling shareholder, was one of the first companies in Hong Kong to grow disillusioned with the stock market last year and was taken private in October. Several others tried to follow, some were frustrated by rebel minority shareholders.

Northern Star's loss in year may hit A$100m

By Chris Sherwell in Sydney

NORTHERN STAR, which controls the core stations in one of Australia's three troubled commercial television networks, yesterday reported an interim loss of A$35.5m (US$26.9m) and said it expected to lose A$90m to A$100m for the year, as previously projected.

The company, which includes Thames Television and Associated Newspapers of the UK as shareholders, owns metropolitan stations in Sydney, Melbourne and Brisbane which are part of the Channel Ten network.

The results are the first since Broadcom, headed by Mr Steve Cosser, acquired control last September, when the Westfield group decided to get out of television after taking more than A$500m in losses. As part of the deal other stations in Adelaide, Perth and Canberra were sold off.

The change means Northern Star's results are not strictly comparable with those of the previous corresponding six months, which showed a profit of A$26.6m on unchanged revenues of A$206m.

But they visibly underscore the financial difficulties the company continues to face, along with its main competitors — Channel Nine and Channel Seven.

In a statement on the results, Northern Star said its loss before interest was A$4.7m, but interest charges of A$30.8m arising from the 1987 acquisition of the network's stations pushed the operating loss to A$35.5m.

Asset sales, cost reductions and staff rationalisation had been completed, it said, and trading performance was in line with a previous full-year forecast of between A$90m and A$100m — meaning a second-half loss of between A$55m and A$65m.

Northern Star said the Ten network had achieved improved ratings in the Sydney and Melbourne markets and saw an opportunity to achieve an increase in advertising share as a result of the 1990 round of negotiations with agencies.

Taiwan boosts Jardine Fleming

By Angus Foster

JARDINE FLEMING, the merchant banking joint venture between Robert Fleming of London and Jardine Matheson of Hong Kong, yesterday announced a 46 per cent rise in net profits to HK$525m (US$67.2m) in 1989.

The company gave no breakdown of the profits growth. But the group's fund management business, which increased funds under management by 50 per cent to US$8bn last year, is thought to have been the main contributor with much of the new money coming from Taiwan.

While the Hong Kong stock market slumbered during the second half of last year, Jardine Fleming's other Asian operations, including its newly opened securities venture in Indonesia, were helped by the strong gains posted by most stock markets in the region. The company's joint venture in Thailand did particularly well, Jardine Fleming said.

Despite the slowdown in Hong Kong, Mr Alan Smith, managing director, said fee income from corporate finance work also improved last year, mainly thanks to the group's regional business.

Jardine Fleming, which has just celebrated its 20th anniversary, said the results represented a return on shareholders' funds of 67 per cent.

● Wardley, the merchant banking subsidiary of Hongkong and Shanghai Banking Corporation, is buying a 25 per cent stake in a securities firm in Thailand in its latest step expanding into Asia.

Wardley is buying the stake in Cathay Trust Company and the companies said they would offer a range of corporate finance and broking services. According to unaudited figures Cathay Trust has total assets of US$130.8m, Wardley said.

Earlier this year Wardley set up a joint venture securities and corporate finance business in Indonesia and the company said it now hopes to move into Taiwan as part of its growth strategy for South East Asia.

Kumpulan Guthrie falls 29% pre-tax

By Lim Siong Hoon in Kuala Lumpur

KUMPULAN Guthrie, Malaysia's largest plantation group, reported a sharp fall in profits for the year to December.

Poor commodity prices drove down pre-tax profit by 29 per cent to 156m ringgit ($57.7m) despite a turnover increase of 18 per cent to 910m ringgit.

The pre-tax profit level is also below its 183m ringgit forecast made last year when the group was floated. It sold 10 per cent of its shares for 210m ringgit. Market capitalisation has since remained the same at 2.1bn ringgit. The Malaysian Government took control of the UK-based Guthrie group in 1981.

The following year, the plantation assets were transferred to Kumpulan Guthrie under the state-owned Permodalan Nasional, a Malay unit trust which has kept its equity control since.

Kumpulan Guthrie now has more than 120,000 hectares of rubber, oil palm and cocoa crops in Malaysia, and another 7,500 hectares in Liberia.

Net earnings per share fell to 7.4 cents from 12.3 cents. The group recommended a final dividend of 7 sen a share compared with 11.5 sen in 1988.

Profitability at Highlands & Lowlands, Kumpulan Guthrie's publicly quoted and largest subsidiary, also fell but less sharply than for the overall group. Pre-tax profit declined by 10 per cent to 71m ringgit, but sales leapt 58 per cent to 259m ringgit.

Profit after tax dropped 11 per cent to 42m ringgit. However, an extraordinary gain of 12m ringgit lifted the final profit by 3 per cent to 55m ringgit.

Earnings per share fell by nearly 2 cents to 14 cents. Annual total dividends, net of tax, amounted to 39m ringgit. The group recommended a final dividend of 12.5 cents a share.

Court dismisses petition against Zelas Enterprises

By Terry Hall in Wellington

THE NEW ZEALAND High Court yesterday dismissed a Securities Commission application seeking the forfeiture of NZ$56m (US$33m) worth of shares held by Zelas Enterprises, a shelf company.

The commission argued that Zelas was merely a front for Gulf Resources and Chemicals of the US. Inoco of the UK is a big shareholder in Gulf Resources.

The decision clears the way for a shareholders' meeting today to approve the issue to Gulf Resources of 230m shares, equal to 70 per cent of the capital of City Realties, a property company, in return for 25 New Zealand properties worth NZ$250m.

The three-day hearing related to the adequacy of disclosures made on the beneficial ownership of 100m City Realties shares bought by Zelas.

The commission argued that Gulf Resources failed last October properly to disclose a "relevant interest" in the shares as required by the Securities Amendment Act 1988.

The hearing was told that at times Zelas had funding arrangements provided by Gulf Resources and Mr Paul McGoldrick, a former vice-president of Merrill Lynch. Gulf Resources refinanced a NZ$2m deposit initially provided by Mr McGoldrick and provided a NZ$16.7m instalment on the NZ$56m total price being paid to Tower Corporation, from which the City Realties shares were being acquired.

Mr McGoldrick, who lives in Christchurch, is a brother-in-law of Mr Peter Whittaker, the co-owner of Zelas. The court was told he had a long-standing business relationship with Mr David Rowland, the British businessman who, through Inoco, has the largest shareholding in Gulf Resources. Gulf has been redirecting its activities into property.

In his judgement Mr Justice McGechan said that explanations sought by the commission last year had yielded only cryptic answers. However, he declined to rule whether reasonable suspicion on its own was sufficient to invoke the commission's claim for forfeiture. He said there were no reasonable grounds to suspect non-compliance.

He refused an application for a new trial and admission of fresh evidence relating to the credibility of Mr Rowland's testimony because of the urgency of the hearing ahead of today's extraordinary shareholders' meeting.

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Notice is hereby given that the interest payable on the relevant Interest Payment Date, April 17, 1990 for the period October 16, 1989 to April 17, 1990 against Coupon No. 10 in respect of US$10,000 nominal of the Notes will be US$430.81.
March 20, 1990, London
By: Citibank, N.A. (CSSI Dept.), Agent Bank
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Interest Period	19th March 1990 19th September 1990
Interest Amount due 19th September 1990 per	
U.S. $10,000.00 Note	U.S. $ 452.33
U.S. $250,000.00 Note	U.S. $11,308.33

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Nationwide Anglia Building Society
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Floating rate notes
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Notice is hereby given that the notes will bear interest at 15 11/16% per annum from 19 March 1990 to 19 June 1990. Interest payable on 19 June 1990 will amount to £395.41 per £10,000 note
Agent: Morgan Guaranty Trust Company
JPMorgan

LAWSON MARDON GROUP
NOTICE is hereby given that the Annual General Meeting of Lawson Mardon Group Limited will be held at the London Hunt and Country Club, London, Ontario, Canada, on May 16th, 1990 at 10.00 a.m. The record date for the closing of the shareholder register in respect of the said meeting is March 27, 1990.
By Order of the Board of Directors
J. B. Laneway Chief Financial Officer

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INTERNATIONAL CAPITAL MARKETS

German bonds tumble on fears over monetary union

By Andrew Freeman in London and Janet Bush in New York

IN WEST Germany, the government bond market reacted strangely to the results of the election in East Germany. After a strong opening amid rumours of Far Eastern buying, the bund market dropped sharply on short-term fears about the inflationary dangers of early monetary union.

GOVERNMENT BONDS

Trading was dominated by volatile activity on the futures market, where the June bund contract opened around the day's high at 83.00, dropped as low as 81.54 and then recovered to trade at 81.80, against Friday's close of 82.94.

On the cash market, the 7¾ per cent bund maturing 2000 was fixed at 93.55 to yield 8.74 per cent, around ¼ point lower than Friday's fixing.

Most other 10-year bunds retreated further, falling between ½ and ¾ point on the day. At the shorter end of the maturity curve, prices showed some resistance and the average yield on federal government paper rose to 8.96 per cent from 8.91 per cent.

■ THE UK government bond market was quiet ahead of today's Budget. In thin turnover, prices followed the weakness in the German market, but were also pushed lower by the poor form of sterling.

Gilts were down by around 1 point, with the 11¾ per cent issue maturing 2003-07 trading at 99$\frac{1}{16}$ after briefly dipping below the 99 level.

Most pre-Budget speculation centred on the possibility that the Government might change its funding policy and begin issuing gilts. While analysts thought that the long-standing buy-in premium had largely disappeared, they expressed worries that the lack of buyers for all sterling bonds made current yield levels particularly vulnerable to the prospect of new issues.

■ IN JAPAN, a late sell-off after the sharp fall on the equity market, combined with renewed weakness of the yen against the US dollar, drove bond prices lower. The benchmark 119th government issue was yielding 7¼ per cent, against Friday's close of 7.120 per cent.

■ US Treasury bonds started as much as ¼ point lower yesterday in reaction to their sharp gains on Friday but recovered most of these losses by late trading.

The Treasury's benchmark long bond was quoted $\frac{1}{16}$ point higher to yield 8.53 per cent while short-dated issues stood as much as ½ point lower.

There were no important US economic data yesterday so attention focussed on today's releases. The consumer prices index is expected to have risen by around 0.3 per cent to 0.4 per cent in February. The market will be looking closely at the index stripped of food and energy prices. The trade deficit is expected to have widened in January to between $9.5bn and $10bn from December's shortfall of $7.2bn.

There was some doubt yesterday about the strong rally on Friday which appeared to be an exaggerated reaction to the industrial production and capacity utilisation figures which were somewhat weaker than expected. Nevertheless, the market's ability to remain relatively steady was encouraging.

BENCHMARK GOVERNMENT BONDS

		Coupon	Red Date	Price	Change	Yield	Week ago	Month ago
UK GILTS		10.000	4/93	91-21	-08/32	13.41	13.45	12.45
		10.500	5/99	89-24	-24/32	12.37	12.40	11.48
		9.000	10/08	82-14	-25/32	11.27	11.32	10.85
US TREASURY *		8.500	02/00	99-14	-03/32	8.58	8.65	8.42
		8.500	02/20	99-12	00/32	8.54	8.63	8.46
JAPAN	No 119	4.800	6/99	86.4287	-0.849	7.25	7.24	6.84
	No 2	5.700	3/07	90.2190	-1.715	7.10	6.91	6.33
GERMANY		7.125	12/99	89.2400	-1.360	8.80	8.89	8.63
FRANCE	BTAN	8.000	10/94	90.6087	-0.225	10.87	10.73	10.82
	OAT	8.125	5/99	86.7000	-0.520	10.04	10.17	10.22
CANADA *		9.250	12/99	89.9600	+0.050	10.96	10.94	10.59
NETHERLANDS		7.500	11/99	89.7209	-1.010	9.13	9.18	8.98
AUSTRALIA		12.000	7/99	92.6446	+0.050	13.39	13.42	13.18

London closing, *denotes New York closing.
Yields: Local market standard. Prices: US, UK in 32nds., others in decimal

Technical Data/ATLAS Price Sources

FT INTERNATIONAL BOND SERVICE

Listed are the latest international bonds for which there is an adequate secondary market.

Closing prices on March 19

US DOLLAR STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
Austria 9½ 93	140	100⅞	101⅜	+0¼	+0⅛	9.18
B.F.C.E. 8¾ 94	175	96¼	96⅝	+0¼	-0¼	9.35
B.F.C.E. 9¼ 95	150	99⅛	99½	+0⅛	+0⅛	9.38
Brit. Tel. Fin. 9⅛ 98	250	†99	99⅛	0	0	9.49
[illegible]						

YEN STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
Canada 6¼ 91	80	98⅛	98⅜	-0⅛	-0⅛	0.08
Canada 5⅛ 95	80	94⅛	95	-0⅛	-0⅛	7.39
Cr.Local France 6⅛ 94	300	94½	94⅝	-0⅛	-0⅛	6.73
Denmark 6⅛ 95	300	94⅛	94⅞	0	-0⅛	6.72
[illegible]						

OTHER STRAIGHTS; DEUTSCHE MARK STRAIGHTS; FLOATING RATE NOTES; CONVERTIBLE BONDS: [illegible]

SWISS FRANC STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
[illegible]						
Britannia B/S. 4¼ 94	100	*†85½	85½	0	0	8.46
CIR. Int. W/W 3 93	125	*†83¼	83¼	0	-0¼	9.02
Credit Lyonnais 4¾ 00	100	*†78½	78½	0	-0¼	7.89
E.I.B 4⅝ 98	150	*†82⅞	82⅞	0	+0¼	7.47
Finn. Exp. Cd. 8¼ 92	75	*†96⅛	96⅛	0	+2⅛	10.00
Fletcher Chall. 4⅞ 98	150	*†75¼	75¼	0	+0¼	9.39
I.A.D.B. 6 2004	200	*†88½	88½	0	0	7.31
Kobe City 4⅝ 98	150	*†83¼	83¼	0	+0⅜	7.39
Leeds Perm. B/S. 4⅛ 93	200	*†88	88	0	+0⅞	8.74
Malaysia 5¼ 98	100	*†82	82	0	0	8.33
Maxwell Comm.Crp. 5 95	150	*†81¾	81¾	0	-0⅛	9.58
Nat. Bk. Hungary 5½ 94	75	*†83½	83½	0	-0⅛	10.02
Nationwide Ang.B/S. 4 93	200	*†87¼	87¼	0	-0¼	8.66
Prov. Newfoundland 5 03	150	*†79	79	0	-0½	7.49
Thailand 4⅝ 95	200	*†86½	86½	0	+1½	7.82
World Bank 5 03	150	*†81½	81½	0	-0⅜	7.19

Average price change... On day 0 on week +0¼

CONVERTIBLE BONDS	Cnv. date	Cnv. price	Bid	Offer	Chg. day	Prem
[illegible]						
Mitsubishi Bk. 3½ 04 US	5/89	3266.	69⅞	70⅛	-3	-0.71
Next Plc 5¾ 03 £	11/87	4.3	96⅛	97⅛	-0⅛	316.56
Nishi Nipp.Bk.2⅞ 03 US	4/88	804.	135⅛	136⅛	-20⅛	-17.09
[illegible] 6 1/2 04 US	10/89	28.	101⅛	102⅛	-0⅛	23.93
Onoda Tatebi 2⅞ 02 US	4/87	1310.	213	214	-18	-5.31
Ranks Hovis 4⅛ 03 £	1/88	3.5	107⅛	108⅛	-0⅛	-0.93
Redland 7¼ 02 £	1/87	5.4	102⅛	103⅛	-0⅛	1.62
Saatchi&Saatchi 6⅛ 03 £	10/89	4.41	61	62	-2	99.42
Silicon Graphics 8 04 US	6/89	23.18	159¼	160¼	+3¼	-1.25
Sumitomo Bank 3¼ 04 US	2/89	3897.	65⅛	66⅛	-2⅞	8.10
Texas Inst. 2¾ 02 US	9/87	62.67	76	77	-0⅛	69.06
Utd.N'papers 8 04 £	10/89	8.77	124¼	125¼	+0⅛	221.92
W.R. Grace 6¼ 02 US	9/87	42.12	88⅛	89⅛	-0⅛	23.58

* No information available-previous day's price

† Only one market maker supplied a price

Straight Bonds: The yield is the yield to redemption of the mid-price; the amount issued is in millions of currency units except for Yen bonds where it is in billions. Change on week = Change over price a week earlier.

Floating Rate Notes: Denominated in dollars unless otherwise indicated. Coupon shown is minimum. C.dte = Date next coupon becomes effective. Spread = Margin above six-month offered rate (‡three-month; §above mean rate) for US dollars. C.cpn = The current coupon.

Convertible Bonds: Denominated in dollars unless otherwise indicated. Chg. day = Change on day. Cnv date = First date of conversion into shares. Cnv. price = Nominal amount of bond per share expressed in currency of share at conversion rate fixed at issue. Prem = Percentage premium of the current effective price of acquiring shares via the bond over the most recent price of the shares.

The prices over the past week were supplied by: Bankers Trust International; Kredietbank N.V.; Commerzbank AG; Deutsche Bank AG; Westdeutsche Landesbank Girozentrale; Bank Generale du Luxembourg SA; Bank Internationale Luxembourg; Kredietbank Luxembourg; Algemene Bank Nederland NV; Pierson, Heldring & Pierson; Credit Suisse; Bank of Tokyo International; Chemical Bank International; Citicorp International Bank; Daiwa Europe NV; LTCB International; Robert Flemming & Co; Goldman Sachs International Corporation; Hambros Bank; IBJ International; Merrill Lynch; Morgan Stanley International; Nikko Securities Company (Europe); Nomura International; Samuel Montagu & Co.; Societe Generale Strauss Turnbull; Swiss Bank Corporation; State Bank of Victoria; UBS-Phillips & Drew; S.G. Warburg Securities

FT GUIDE TO WORLD CURRENCIES

The table below gives the latest available rates of exchange (rounded) against four key currencies on Monday, March 19, 1990. In some cases the rate is nominal. Market rates are the average of buying and selling rates except where they are shown to be otherwise. In some cases market rates have been calculated from those of foreign currencies to which they are tied.

COUNTRY		£ STG	US $	D-MARK	YEN (X 100)
Afghanistan	(Afghani)	99.25	61.5694	36.5898	40.1016
Albania	(Lek)	10.0595	6.2403	3.7085	4.0644
Algeria	(Dinar)	12.92	8.0148	4.7631	5.2202
Andorra	(Fr Fr)	9.1725	5.6901	3.3815	3.7060
	(Sp Peseta)	174.45	108.2196	64.3133	70.4848
Angola	(Kwanza)	51.015u	30.0412	18.8073	20.6121
Antigua	(E Carr $)	4.3605	2.7050	1.6075	1.7618
Argentina	(Austral)	7691.225	4771.2313	2835.4746	3107.5656
Aruba	(Florin)	2.8908	1.7933	1.0657	1.1680
Australia	(Aus $)	2.1400	1.3275	0.7889	0.8646
Austria	(Schilling)	19.065	11.8269	7.0285	7.7030
Azores	(Port Escudo)	240.75	149.3486	88.7557	97.2727
Bahamas	(Bahama $)	1.6120	1	0.5942	0.6513
Bahrain	(Dinar)	0.6078	0.3770	0.2240	0.2455
[illegible]					
Falkland Is	(Falk £)	1.00	0.6203	0.3686	0.4040
Faroe Is	(Danish Kroner)	10.3850	6.4423	3.8285	4.1959
Fiji Is	(Fiji $)	2.4740	1.5347	0.9120	0.9995
Finland	(Markka)	6.4583	4.0063	2.3809	2.6094
France	(Fr)	9.1725	5.6901	3.3815	3.7060
Fr. Cty/Africa	(CFA Fr)	458.625	284.5068	169.0783	185.3030
Fr. Guiana	(Local Fr)	9.1725	5.6901	3.3815	3.7060
Fr. Pacific Is	(CFP Fr)	164.00	101.7369	60.4608	66.2626

COUNTRY		£ STG	US $	D-MARK	YEN (X 100)
Gabon	(CFA Fr)	458.625	284.5068	169.0783	185.3030
Gambia	(Dalasi)	13.442	8.3387	4.9555	5.4311
Germany East	(Ostmark)	2.7125	1.6826	1	1.0959
Germany West	(DMark)	2.7125	1.6826	1	1.0959
Ghana	(Cedi)	501.954	311.3858	185.0521	202.8096
Gibraltar	(Gib £)	1.00	0.6203	0.3686	0.4040
Greece	(Drachma)	260.10	161.3523	95.8894	105.0909
Greenland	(Danish Krone)	10.3850	6.4423	3.8285	4.1959
Grenada	(E Carr $)	4.3605	2.7050	1.6075	1.7618
Guadaloupe	(Local Fr)	9.1725	5.6901	3.3815	3.7060
Guam	(US $)	1.6120	1	0.5942	0.6513
Guatemala	(Quetzal)	6.0656	3.7627	2.2361	2.4507
Guinea	(Fr)	484.50	300.5583	178.6175	195.7575
Guinea-Bissau	(Peso)	1049.74u	648.8502	387	424.1373
Guyana	(Guyanese $)	48.32u	29.9587	17.8138	19.5232
[illegible]					
Namibia	(S A Rand)	4.1998	2.6053	1.5483	1.6968
Nauru Is	(Australian $)	2.1400	1.3275	0.7889	0.8646
Nepal	(Nepalese Rupee)	45.866	28.4528	16.9091	18.5317
Netherlands	(Guilder)	3.0550	1.8951	1.1262	1.2343
N'nd Antilles	(A/Guilder)	2.8908u	1.7868	1.0657	1.1680
New Zealand	(NZ $)	2.7575	1.7106	1.0165	1.1141
Nicaragua	(Cordoba)	64798.00	40197.2704	23888.6635	26181.0101
Niger Rep	(CFA Fr)	458.625	284.5068	169.0783	185.3030
Nigeria	(Naira)	12.7262	7.8946	4.6916	5.1418
Norway	(Nor. Krone)	10.5550	6.5477	3.8912	4.2646
Oman	(Rial Omani)	0.6206	0.3849	0.2287	0.2507

COUNTRY		£ STG	US $	D-MARK	YEN (X 100)
Pakistan	(Pak. Rupee)	34.00	21.0918	12.5345	13.7373
Panama	(Balboa)	1.6120	1	0.5942	0.6513
Papua New Guinea	(Kina)	1.5785	0.9792	0.5819	0.6377
Paraguay	(Guarani)	2001.66	1241.7245	737.9391	808.7515
Peru	(Inti)	20712.05	12848.6662	7635.7788	8368.5050
Philippines	(Peso)	35.20	21.8362	12.9769	14.2222
Pitcairn Is	(£ Sterling)	1.00	0.6203	0.3686	0.4040
	(NZ $)	2.7575	1.7106	1.0165	1.1141
Poland	(Zloty)	15295.00	9488.2133	5638.7096	6179.7979
Portugal	(Escudo)	240.75	149.3486	88.7557	97.2727
Puerto Rico	(US $)	1.6120	1	0.5942	0.6513
Qatar	(Riyal)	5.8693	3.6410	2.1637	2.3714
Reunion Is. de la	(F Fr)	9.1725	5.6901	3.3815	3.7060
[illegible]					
Vietnam	(Dong)	7267.50	4508.3746	2679.2626	2936.3636
Virgin Is-British	(US $)	1.6120	1	0.5942	0.6513
Virgin Is-US	(US $)	1.6120	1	0.5942	0.6513
Western Samoa	(Tala)	3.7250	2.3107	1.3732	1.5050
Yemen	(Rial)	15.7468	9.7681	5.8050	6.3601
Yemen PDR	(Dinar)	0.5491o	0.3393	0.2024	0.2218
Yugoslavia	(Dinar)	19.2586	11.9470	7.0999	7.7812
Zaire Rep	(Zaire)	795.77	493.6538	293.3714	321.5232
Zambia	(Kwacha)	64.00	39.7022	23.5944	25.8585
Zimbabwe	($)	3.8125	2.3650	1.4055	1.5404

Special Drawing Rights March 16, 1990 United Kingdom £0.809927 United States $1.30413 Germany West D Mark 2.21572 Japan Yen198.749. European Currency Unit Rates March 19, 1990 United Kingdom £0.747288 United States $1.20911 Germany West D Mark 2.03494 Japan Yen185.659

Abbreviations: (a) Free rate; (b) Banknote rate; (c) Commercial rate; (d) Controlled rate; (e) Essential imports; (g) Financial rate; (h) Exports; (i) Non commercial rate; (j) Business rate; (k) Buying rate; (l) Luxury goods; (m) Market rate; (n) Official rate; (p) preferential rate; (q) convertible rate; (r) parallel rate; (s) Selling rate; (t) Tourist rate; (u) Currency fixed against the US Dollar. Brazil rate unavailable Mar 19. Some data supplied by Bank of America, Economics Department, London Trading Centre. Enquiries: 01 634 4360/5. Monday, March 19, 1990.

INTERNATIONAL CAPITAL MARKETS

Warrant issues postponed as investors dump stock

By Norma Cohen

THE TOKYO Stock Exchange's precipitous drop of over 1,300 points overnight left the equity warrant sector of the Eurobond market in disarray yesterday, with secondary prices of warrants off by about 10 per cent. Several dealers complained of "dumping" of inventory by some major players, pushing prices down further.

Privately, officials at the four major Japanese firms which underwrite the bulk of new issues, said that much of the existing queue of new equity warrant Eurobonds has been postponed. A $300m issue for Seiyu Corp, set to be launched last Friday via Nomura Securities, failed to materialise, as did a $300m issue for Ricoh Corp, set for launch yesterday. A $300m issue for Kao Corp, scheduled for launch on March 22, is also expected to be postponed.

A four-tranche offering for Sumitomo Metal Industries set for March 27, which includes a Y100bn tranche to be launched in Tokyo, is also said to be postponed. While officials of the firms dislike public proclamations that new issues have been halted – such statements leave the houses open to criticism as members of a cartel – they privately concede that any new deals are highly unlikely.

Daiwa Europe, lead manager of a recent equity warrant Eurobond for Snow Brand Milk Products, set the terms of the issue yesterday, cutting the size of the deal to $150m from the $200m originally announced. In the market, the deal was trading at 87 against an issue price of par.

INTERNATIONAL BONDS

The scale of recent losses in the sector can be seen from the prices of new issues, all of which were launched at an issue price of par. Yamanouchi Pharmaceutical was trading yesterday at 86 while Matsushita Electric was quoted at 89 and Mitsubishi Oil at 86. Warrants, which when detached from the underlying bond were assumed to have a value of 24¼ points, are now in single digits on some issues.

Unlike previous periods of disarray in the equity warrant Eurobond market, tumbling prices are not a reflection of overly aggressive coupons or a supply glut. Instead, the current conditions reflect the massive correction in the Tokyo equities markets. Last week, underwriters had been privately suggesting to clients that a coupon of as much as 4 per cent might be needed to make issues attractive, up from the current range of 2½ to 2¾ per cent.

But by yesterday, market officials were arguing that no amount of coupon adjustment will be sufficient to make new equity warrant Eurobonds attractive. "People are scared. They are wondering how far can the Tokyo Stock market go down," said Mr Shuichiro Kashiwa, executive director of Daiwa Europe. "Under these circumstances, it is a nonsense to talk about coupon or price."

In Switzerland, IBM International Finance issued a SFr150m five-year private placement bearing a coupon of 7¾ per cent and priced at 100¼. While dealers termed the pricing very aggressive, it was able to trade just inside its 1⅜ percent fees, with buyers pulled in by the borrower's name. If anything, the issue is suffering from a glut of five-year paper in the market, rather than its own fine terms.

Meanwhile, the free-fall in the Tokyo Stock markets spilled over into Japanese issues, with Iseki Poly-tech's recent issue falling outside its fees to less 3 bid from less 1¼ bid on Friday. Sumitomo Seika Chemicals' recent equity warrant deal fell to less 6¾.

NEW INTERNATIONAL BOND ISSUES

Borrower	Amount m.	Coupon %	Price	Maturity	Fees	Book runner
CANADIAN DOLLARS						
Toronto-Dominion Bank(a)◆	100	13	101.90	1993	1⅜/⅞	ScotiaMcLeod
AUSTRALIAN DOLLARS						
GMAC Australia Finance(a)◆	60	15¼	102	1995	1½/1	Hambros Bank
SWISS FRANCS						
IBM International Fin.(a)★★◆	150	7¾	100¼	1995	1⅜	Credit Suisse
YEN						
C. Itoh Int. Finance(a)◆	10bn	7½	101⅝	1994	1⅝/1⅛	Nikko Secs. (Europe)
US DOLLARS						
Snow Brand Milk Prod.(b)♦◆	150	2⅜	100	1994	2¼/1½	Daiwa Europe

★★Private placement. ♦With equity warrants. ◆Final terms. a) Non-callable. b) Amount reduced to $150m from $200m.

S African utility issues German bond

SOUTH AFRICA'S Electricity Supply Commission has been able to issue a new bond in the West German market in what is believed to be the first such operation since 1985, writes Stephen Fidler.

The new issue of DM100m in effect refinances part of a DM150m issue, launched in 1983 through Commerzbank, which matures in April. Commerzbank is the paying agent for the new issue, which carries a three-year maturity, a coupon of 10⅛ per cent and is priced at par.

The maturing issue carries an 8½ per cent coupon.

While South African entities have been able to push through a number of bond refinancings in the Swiss market in recent years, there have apparently been no such refinancings in the German market.

Mezzanine finance fund launched

By Charles Batchelor

MITHRAS Investment Trust, a £66m trust intended to provide mezzanine finance investors with publicly tradeable mezzanine securities, was launched yesterday.

Mithras will seek a stock market listing, probably by the end of this year. At present, mezzanine funding in the UK is provided in loan form and is tradeable only with difficulty.

If Mithras is successful it might make superfluous attempts to establish a secondary market for mezzanine funding in the UK on similar lines to the troubled US junk bond market, its backers said. A number of UK mezzanine finance companies have been attempting to make mezzanine available in bond form although bonds tie the investor into the fortunes of a single company.

Mithras has been set up by Legal & General Assurance of the UK, P-B Interfunding, a subsidiary of Prudential Insurance of the US, and Financiere Indosuez, the corporate finance arm of Banque Indosuez of France. Each has provided £20m of loan stock 1990-2010 and £2m of equity capital.

Mithras will be run as an investment "club" with each of the founder members involved in selecting investments. Most mezzanine and management buy-out funds are organised as "blind pools" with investors leaving decision-making to a management team.

SEC in junk bond study

The SEC has asked staff to study ways of establishing a centralised price or quotation system for the junk bond market, Reuters reports.

In a letter to Senate Banking Committee, the SEC said it favoured steps to improve access to price information and liquidity in the junk bond market.

But it cautioned that "an overly intrusive approach could create other risks and significant costs."

DTI paves way for futures funds

Deborah Hargreaves reports on draft regulations for UK unit trusts

The $8bn international market for futures funds could be opened up to UK unit trusts if long-awaited draft regulations released yesterday by the Department of Trade and Industry become law.

At the same time, the department has asked for industry comments on a number of issues likely to cause heated debate in coming months.

The move presages change in the tax treatment of derivatives which may be mentioned in the UK Budget today, and paves the way for futures and options funds to be set up in the UK. The draft creates a structure for regulating these funds for the first time and also allows conventional unit trusts to broaden their use of futures.

At the same time, the Securities and Investments Board has issued a paper on the marketing of futures funds in the UK. It is also seeking to tighten up the way warrant funds are sold to UK customers given the recent volatility in the Japanese equity warrants sector.

In these draft proposals, the UK regulatory authorities are responding to a heartfelt market need for room to set up investment funds devoted to futures and options. Managed futures funds have been popular in the US, where they have allowed individual investors to gain access to the high-risk, high-return markets for derivative products.

In the absence of a regulatory structure in the UK, futures funds have been set up offshore to take advantage of rising investor interest in the commodity and financial derivatives markets.

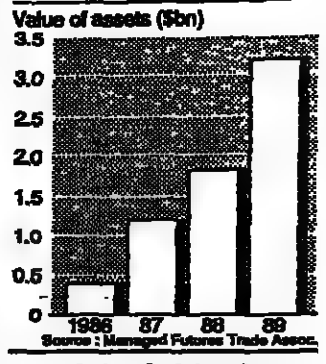
Last year, Mercury Asset Management, a subsidiary of SG Warburg, raised $50m in six weeks for an options income fund it launched in Luxembourg. The company is understood to have tried hard to create the fund in the UK, but was thwarted by regulatory and tax obstacles.

The confusing tax treatment of derivatives has been a further drawback for UK unit trusts which want to make a foray into the futures markets. The dual tax structure whereby funds pay corporation tax for trading derivatives and the holder of the fund pays capital gains tax on redemption, can put off a lot of investment managers.

If the Inland Revenue introduces some symmetry into the tax law with this year's Budget or in the UK Finance Bill which will get its first reading in mid-April, the market for futures funds could boom. If not, the DTI and SIB could see their drafts fall flat.

A change in the tax law will also encourage traditional unit trusts to use the futures and options markets to a greater extent. The DTI's draft allows these conventional trusts to use derivatives for "efficient portfolio management" rather than just hedging. This will allow unit trusts to make anticipatory hedges rather than waiting to hold the relevant assets before hedging them.

US public futures funds



Source: Managed Futures Trade Assoc.

However, the conservative unit trust industry has long been wary of investing in futures and options. In fact, the Unit Trust Association had argued against the new funds being classed as unit trusts since it felt it could mar the public perception of trusts as safe investments.

For this reason, the UTA does not expect there to be a rush among trusts to set up authorised futures and options funds, as these "new kind" of unit trusts were called in the DTI's draft. But there is a strong demand among UK brokerages to launch these funds which have proved so attractive to overseas investors.

While the DTI has issued a framework for regulating futures funds, it is also asking for consultation on whether these instruments should be divided between low and high exposure funds. The SIB is also making a distinction between the two whereby the more highly geared instruments will have to carry a stronger warning to investors in their advertisments.

Low-risk funds are similar to 90-10 funds or guaranteed funds in the US where only a small part of the fund's money is invested in derivatives and there is a guaranteed return of principal. Their more highly-geared counterparts are those funds which achieve leverage beyond their asset value.

The DTI's draft currently requires a prospective futures fund to have enough cash to cover twice the amount of margin it needs in the futures market. Given the low level of futures margins, this means a fund could become quite highly geared.

What the SIB is hoping is that industry comments will encourage the DTI to measure the fund's leverage by contract value and not margin.

The marketing regime for these leveraged futures funds will be fairly restrictive, the SIB envisages. The new rules it proposes for selling warrant funds are likely to be similarly strict. The SIB is concerned that warrant funds can be risky, particularly in view of the Japanese warrants market's volatility, and that investors should be warned.

The DTI and SIB will now receive industry comments on their proposals with the new rules likely to be introduced before the end of the year.

Osaka SE opens doors to foreign brokers

By Michiyo Nakamoto in Tokyo

GROWING INTEREST among foreign securities firms in trading equity derivative products has prompted the Osaka Stock Exchange to open its doors to new members this spring.

Several foreign securities companies have expressed interest in applying for membership in the OSE when applications start being accepted possibly as early as the end of this month. An OSE official said the decision to accept new members should be finalised at a board meeting today.

The main attraction of the Osaka exchange to the foreign companies is the right to trade the Nikkei futures and options contracts, which are linked to the widely followed Nikkei index, and are traded exclusively on the Osaka exchange.

The Tokyo Stock Exchange trades the Topix futures and options contracts which are linked to its own Topix index. The Topix index, which comprises all stocks on the Tokyo Stock Exchange, is a relatively new index and is less popular than the Nikkei.

Foreign securities firms in Japan, many of which have been struggling to make ends meet, are setting their hopes on the trading of equity derivative products as a means to enhance their position vis-à-vis their Japanese competitors and win their share of the lucrative Japanese equity market.

Foreign firms are looking specifically to index arbitrage. European firms have mostly watched the major US firms, particularly Salomon Brothers, Morgan Stanley and Goldman Sachs, increase their influence on the market with their large programme trades.

Many of the European firms, like the large Japanese brokerages, have been wary of taking on index arbitrage. "It is one-way trading in which everyone decides either to sell or to buy," said one broker at a British firm. "If that means the market as a whole is going to suffer, as it has this year, it is like wringing your own neck."

Nevertheless, European firms have also started to build up skills in trading derivative products, and are now importing those skills into their Japanese offices. Schroder Securities set up a futures and options division in its Tokyo office earlier this year.

LONDON MARKET STATISTICS

FT-ACTUARIES SHARE INDICES

	EQUITY GROUPS & SUB-SECTIONS (Figures in parentheses show number of stocks per section)	Monday March 19 1990 Index No.	Day's Change %	Est. Earnings Yield% (Max.)	Gross Div. Yield% (Act at (25%))	Est. P/E Ratio (Net)	xd adj. 1990 to date	Fri Mar 16 Index No.	Thu Mar 15 Index No.	Wed Mar 14 Index No.	Year ago (approx) Index No.
1	CAPITAL GOODS (202)	857.90	−0.9	13.53	5.13	9.01	3.19	866.08	866.08	854.74	936.68
2	Building Materials (27)	1036.41	−1.0	15.15	5.47	8.23	0.89	1047.29	1047.29	1037.38	1178.48
3	Contracting, Construction (37)	1405.97	−0.3	17.47	5.69	7.49	6.04	1410.58	1410.58	1406.07	1755.69
4	Electricals (10)	2490.44	−0.5	12.03	5.30	10.15	0.75	2503.26	2503.26	2481.31	2769.61
5	Electronics (29)	1819.71	−0.9	9.96	4.05	13.02	16.17	1835.45	1835.45	1816.08	2095.15
6	Engineering-Aerospace (8)	431.53	−1.4	15.51	5.35	7.93	0.04	437.48	437.48	435.46	0.00
7	Engineering-General (44)	463.08	−1.1	12.14	5.27	9.92	2.83	468.06	468.06	465.68	0.00
8	Metals and Metal Forming (6)	482.04	−0.6	24.41	6.46	4.62	0.00	496.07	496.07	478.25	534.01
9	Motors (16)	353.88	−1.2	14.24	6.27	8.32	3.10	358.04	358.04	354.18	308.48
10	Other Industrial Materials (25)	1589.66	−1.1	11.28	4.77	10.33	3.12	1606.58	1606.58	1563.22	1567.10
21	CONSUMER GROUP (176)	1212.76	−0.9	9.44	4.00	13.23	3.97	1224.30	1224.30	1209.65	1163.19
22	Brewers and Distillers (22)	1390.54	−0.5	10.04	3.81	12.30	6.57	1397.49	1397.49	1390.75	1307.29
25	Food Manufacturing (20)	1061.78	−2.1	10.47	4.41	11.87	4.74	1084.05	1084.05	1068.41	1013.46
26	Food Retailing (16)	2262.48	−0.7	8.95	3.35	14.51	7.09	2278.87	2278.87	2257.23	1944.22
27	Health and Household (13)	2470.78	−0.6	6.50	2.80	18.29	2.48	2485.72	2485.72	2432.75	2121.97
29	Leisure (31)	1441.18	−1.2	9.81	4.21	12.58	6.20	1458.82	1458.82	1443.98	1607.11
31	Packaging & Paper (13)	561.10	−0.5	12.52	5.59	10.09	1.44	564.20	564.20	561.81	581.02
32	Publishing & Printing (16)	3205.09	−0.9	10.04	5.46	12.74	21.87	3234.20	3234.20	3225.13	3648.66
34	Stores (33)	750.15	−1.0	11.57	4.99	11.25	1.78	757.41	757.41	749.44	766.99
35	Textiles (12)	505.25	−0.7	12.93	6.93	9.74	0.37	508.95	508.95	501.12	513.73
40	OTHER GROUPS (104)	1142.34	−0.9	10.91	4.95	11.01	4.44	1152.18	1152.18	1141.63	1052.92
41	Agencies (17)	1553.40	−0.5	5.80	2.47	21.25	9.20	1561.32	1561.32	1559.69	1278.31
42	Chemicals (23)	1206.43	−0.5	12.01	5.41	9.90	20.57	1212.42	1212.42	1192.59	1188.22
43	Conglomerates (13)	1576.27	−1.2	10.32	6.21	11.41	5.64	1594.73	1594.73	1584.60	1488.40
44	Transport (13)	2216.84	−0.9	11.04	4.35	11.53	2.88	2237.38	2237.38	2227.34	2346.38
46	Telephone Networks (2)	1143.06	−0.9	11.11	4.48	11.71	0.00	1153.58	1153.58	1136.38	1091.70
47	Water (10)	1948.36	−1.8	17.89	6.95	6.19	0.00	1984.62	1984.62	1979.61	0.00
48	Miscellaneous (26)	1861.04	−0.5	9.77	4.44	11.56	1.16	1870.77	1870.77	1856.94	1473.39
49	INDUSTRIAL GROUP (482)	1116.30	−0.9	10.92	4.58	11.21	4.00	1126.60	1126.60	1113.81	1094.93
51	Oil & Gas (18)	2330.17	−1.5	10.55	5.17	12.50	32.88	2366.71	2366.71	2335.86	1989.35
59	500 SHARE INDEX (500)	1217.10	−1.0	10.87	4.67	11.38	6.22	1229.47	1229.47	1215.21	1170.68
61	FINANCIAL GROUP (114)	780.38	−1.5	–	5.75	–	9.98	792.27	792.27	787.57	744.74
62	Banks (9)	847.55	−1.5	19.85	6.40	6.59	22.40	860.24	860.24	853.36	729.77
65	Insurance (Life) (7)	1281.13	−0.8	–	5.31	–	0.00	1291.21	1291.21	1285.69	1079.87
66	Insurance (Composite) (7)	638.14	−1.9	–	6.23	–	4.25	650.62	650.62	649.11	589.55
67	Insurance (Brokers) (6)	1036.36	−0.4	7.16	6.08	18.53	15.51	1040.97	1040.97	1051.03	976.44
68	Merchant Banks (8)	466.47	−0.8	–	3.99	–	0.83	470.18	470.18	469.19	340.04
69	Property (49)	1065.86	−2.3	8.52	4.06	14.85	1.56	1090.61	1090.61	1078.49	1319.67
70	Other Financial (28)	317.02	−0.5	13.66	6.85	9.65	2.37	318.65	318.65	318.67	381.65
71	Investment Trusts (68)	1160.64	−1.1	–	3.25	–	6.56	1173.79	1173.79	1162.60	1080.82
91	Overseas Traders (5)	1378.24	−1.6	9.36	6.63	12.91	30.79	1400.97	1400.97	1385.49	1392.64
99	ALL-SHARE INDEX (687)	1111.57	−1.1	–	4.80	–	7.10	1123.79	1123.79	1111.78	1067.00

	Index No.	Day's Change	Day's High (a)	Day's Low (b)	Mar 16	Mar 15	Mar 14	Mar 13	Mar 12	Year ago
FT-SE 100 SHARE INDEX‡	2238.0	−25.9	2261.1	2236.9	2263.9	2263.9	2234.9	2226.1	2234.5	2053.6

FIXED INTEREST

	PRICE INDICES	Mon Mar 19	Day's change %	Fri Mar 16	xd adj. today	xd adj. 1990 to date
	British Government					
1	Up to 5 years	112.62	−0.19	113.43	0.60	3.17
2	5-15 years	118.39	−0.74	119.42	0.14	2.55
3	Over 15 years	120.80	−1.35	122.45	–	4.16
4	Irredeemables	140.32	−0.59	141.15	–	1.51
5	All stocks	118.34	−0.62	119.37	0.29	3.02
	Index-Linked					
6	Up to 5 years	140.12	−0.06	140.21	–	0.94
7	Over 5 years	131.89	−0.48	132.53	–	1.05
8	All stocks	132.40	−0.45	133.00	–	1.04
9	Debentures & Loans	96.28	−0.17	96.45	–	2.35
10	Preference	76.52	−0.28	76.74	–	1.49

	AVERAGE GROSS REDEMPTION YIELDS		Mon Mar 19	Fri Mar 16	Year ago (approx.)
	British Government				
1	Low Coupons	5 years	11.63	11.54	9.44
2		15 years	11.22	11.10	9.02
3		25 years	11.08	10.97	8.85
4	Medium Coupons	5 years	12.90	12.77	10.51
5		15 years	11.65	11.49	9.48
6		25 years	11.20	11.07	9.03
7	High Coupons	5 years	13.00	12.88	10.63
8		15 years	11.94	11.73	9.70
9		25 years	11.43	11.24	9.21
10	Irredeemables	†	11.07	11.00	8.80
	Index-Linked				
11	Inflation rate 5%	Up to 5yrs.	4.66	4.63	3.39
12	Inflation rate 5%	Over 5 yrs.	4.14	4.10	3.48
13	Inflation rate 10%	Up to 5yrs.	3.78	3.74	2.57
14	Inflation rate 10%	Over 5 yrs.	3.98	3.94	3.33
15	Debs & Loans	5 years	15.83	15.84	12.17
16		15 years	14.13	14.14	11.34
17		25 years	13.45	13.43	10.73
18	Preference	†	12.05	12.02	10.02

‡Opening index 2260.8; 10 am 2253.0; 11 am 2245.5; Noon 2247.5; 1 pm 2245.8; 2 pm 2245.5; 3 pm 2242.7; 3.30 pm 2243.5; 4 pm 2237.1 (a) 9.03am (b) 4.15pm † Flat yield. Highs and lows record, base dates, values and constituent changes are published in Saturday issues. A list of constituents is available from the Publishers, The Financial Times, Number One, Southwark Bridge, London SE1 9HL, price 15p, by post 35p.
RECLASSIFICATION: Courtaulds (35) has moved into group (42).

RISES AND FALLS YESTERDAY

	Rises	Falls	Same
British Funds	2	89	5
Corporations, Dominion and Foreign Bonds	1	8	17
Industrials	182	530	879
Financial and Properties	65	284	358
Oils	23	31	37
Plantations	0	3	7
Mines	73	15	70
Others	92	63	105
Totals	438	1,023	1,478

LONDON RECENT ISSUES

EQUITIES

Issue Price p	Amount Paid up	Latest Renunc. Date	1989/90 High	1989/90 Low	Stock	Closing Price p	+or-	Net Div.	Times Cov'd	Gross Yield	P/E Ratio
§125	F.P.	–	128	121	ABI Leisure 10p	121	−2	R4.7	3.3	5.2	7.9
§14	F.P.	–	17½	15	♦ADG Group 5p	17	−½	R0.5	3.7	3.9	5.7
–	F.P.	–	505	485	Abtrust New Euro. I.T.	498	+5	–	–	–	–
–	F.P.	–	1½	½	♦Atlantic Res. Warrants	1½		–	–	–	–
100	F.P.	–	97	95	Beta Global Emg. I.T.10p	95		–	–	–	–
–	F.P.	–	28	23	Do. Warrants	27		–	–	–	–
§42	F.P.	–	45	37	*Blocma 1p	42		–	–	–	–
†	F.P.	–	300	300	*Chartwell Group £1	300		R1.0	–	0.4	–
†	F.P.	–	215	215	*Cityboxd Storage Serv.£1	215		–	–	–	–
–	F.P.	–	254	251	Courtaulds Textiles	254		W11.6	2.4	6.1	8.8
–	F.P.	–	4¼	1	Courtwell Group Wrnts.	2¼		–	–	–	–
§§45	F.P.	–	47	46	♦Dakota Group Ir25p	47		u04.6%	4.0	2.3	11.3
†	F.P.	–	148	135	F & C Germany Inv. Tst.	139	+1	2.0	1.0	2.0	–
§100	F.P.	–	99	95	First Ireland Inv. 10p	95	−1	–	–	–	–
–	F.P.	–	32	29	Do. Warrants	30	−1	–	–	–	–
–	F.P.	–	49	36	First Philipns. Inv. Tst.	40	+1	–	–	–	–
–	F.P.	–	22	15	Do. Warrants	15	−2	–	–	–	–
†	F.P.	–	560	525	Five Arrows Chile Fd	557	+3	–	–	–	–
†	F.P.	–	250	140	Do. Warrants	247	+1	–	–	–	–
$10.6	F.P.	–	644	570	GT Chile Fund Units	572	+2	–	–	–	–
$10.3	F.P.	–	640	572	Genesis Malaysia Majlo 1c	634	+3	–	–	–	–
100	F.P.	–	103	98	German Inv. Tst.	103	+2½	2.0	1.0	2.6	–
100	F.P.	–	100	97	Henderson Highland Tst.	98	+1	K5.25	–	7.1	–
$100	F.P.	–	666	663	Hungarian Investment 1c	664		–	–	–	–
§38	F.P.	–	43	38	*Image Store Hldgs. 10p	39		–	–	–	–
$10	F.P.	–	616	572	Malaysia Eq. Fd. 10c	595	+2	–	–	–	–
$10	F.P.	–	227	192	Do. Warrants 10c	193		–	–	–	–
–	F.P.	–	519	500	Martin Currie Euro. I.T.	519	+2	–	–	–	–
–	F.P.	–	35	22	Merlin Intl Green Wrnts	25		–	–	–	–
†	F.P.	–	188	160	Midlands Radio 10p	164	−5	4.5	1.4	3.7	14.0
§100	F.P.	–	103	96	♦Wessial 5p	99		–	–	–	–
§	F.P.	–	567	554	Schroder Japanese Wrnt.	557	+3	–	–	–	–
§	F.P.	–	265	227	Do. Warrants	263	+1	–	–	–	–
§25	F.P.	–	40	25	♦Storm Group 1p	31		–	–	–	53.2
†	F.P.	–	295	285	Sutton Dist. Water A 1p	285		–	–	–	–
†	F.P.	–	138	128	Do. B 1p	133		–	–	–	–
£2400	£1000	–	£1755	£1000	Water Package Units	£1543	−60	–	–	–	–

FIXED INTEREST STOCKS

Issue Price £	Amount Paid up	Latest Renunc. Date	1989/90 High	1989/90 Low	Stock	Closing Price £	+or-
98.94	F.P.	–	99⅛	87¾	British Inv. Tst. 11⅛pc Sec. Db 2012	87¾	
–	F.P.	–	85p	68p	Courtwell Group 10¼pc (Net) Cv.Cm.PF	68p	−3
100½p	F.P.	–	101½p	95p	Evered 11.25p Cm Rd Pf 2005 10p	98½p	
§100	Nil	–	34pm	22pm	Gestetner Non-Int. Cv. Uns Ln 1990	31pm	−3
100p	Nil	–	4pm	1½pm	Reckitt & Colman 9.5pc Cv Bds 2005	1½pm	−¼
100p	F.P.	–	98p	96p	Wyndham Group 9.375pc Cm.Pf	98p	
–	F.P.	–	55p	55p	York Trust 8.5p (Net) Rd.Cv.Pf 25p	55p	

RIGHTS OFFERS

Issue Price p	Amount Paid up	Latest Renunc. Date	1989/90 High	1989/90 Low	Stock	Closing Price p	+or-
260	Nil	–	9pm	1½pm	Electra Inv. Tst.	8pm	+1
28	Nil	19/4	9pm	4pm	♦GC Flexr. & Furnish. 10p	4pm	
h10	Nil	–	19½pm	16½pm	Gaelic Resources	17½pm	−1
22	Nil	30/3	4pm	2pm	Goodman Group 5p	2pm	
290	Nil	–	52pm	31pm	Leigh Interests 5p	31pm	
150	Nil	–	16pm	7pm	Newman Tonks Group	7pm	
100	Nil	10/4	14pm	10pm	Radiotrust	10pm	−1

a Annualised dividend. b Figures based on prospectus estimates. d Dividend rate paid or payable on part of capital, cover based on dividend on full capital. g Assumed dividend and yield. u Earnings based on preliminary figures. s Dividend and yield exclude special payment. t Forecast, or estimated annualised dividend rate, cover based on previous year's earnings. H Dividend and yield based on prospectus or other official estimates for 1989. K Dividend and yield based on prospectus or other official estimates for 1990-91. L Estimated annualised dividend, cover and p/e based on latest annual earnings. M Dividend and yield based on prospectus or other official estimates for 1990. N Dividend and yield based on prospectus or other official estimates for 1989/90. Q Gross. R Forecast annualised dividend, cover and p/e ratio based on prospectus or other official estimates. W Pro Forma figures. ♦ Issued by tender. § Offered to holders of ordinary shares as a "rights". † Introduction. § Placing price. †† Reintroduction. ◎ Unlisted securities market. * Third Market.

TRADITIONAL OPTIONS

- First Dealings: March 19
- Last Dealings: March 30
- Last Declarations: June 21
- For settlement: July 2

For rate indications see end of London Share Service

Calls in Laura Ashley, Colorell, Auto. Security, BTP, Fed. Housing, Union Square, Butte Mining, Dewey Warren, Amstrad, Aviva Pet., Crystalate, Wilton, Babcock Int., Tarmac, Lon. & Edin. Tst., Brit. & Comm. and Oliver Res. Put in Body Shop.

LONDON TRADED OPTIONS

ACTIVITY in London's equity derivative markets turned down yesterday as investors waited on the sidelines for the UK Budget today. Turnover in the traded options market would have been even lower but for only modest business in March stock options which expire tomorrow.

Total turnover stood at 17,657 contracts, compared with 30,609 on Friday. Yesterday's total was divided between 9,444 calls and 8,213 puts. The main stimulus to options business was the closing out of expiring March contracts and the rolling over into future months.

The FT-SE 100 index options were the most active, trading 4,228 lots. This was divided between 1,808 calls and 2,419 puts. The March 2,200 put series was the most active, as 630 lots changed hands.

Turnover was boosted by buying of FT-SE calls. But most market participants were reluctant to take positions before the Budget. The jitters in the equity markets after the sharp fall in Tokyo, the decline in sterling and the release of the UK trade figures on Thursday were further reasons for investors to avoid a larger exposure, dealers said.

These worries were reflected in the futures market, which quickly moved to a discount against the cash index.

At one stage the discount reached 8 points, prompting the stock market to weaken. But the market received brief support when sellers of call options bought the futures index as a hedge.

The March FT-SE futures contract closed at a 6½ point discount, indicating concern that equities could be set to stage a further decline.

Of the stock options, Amstrad was the busiest, boosted by closing trades. A total of 1,323 contracts changed hands, of which 970 were calls and 353 were puts. The March 50 call series was the busiest, trading 442. Amstrad closed 1½ lower at 60p, as a purchaser of 500 March puts sold stock. Another investor crossed 550 March 50 calls.

Option		Calls Apr	Calls Jul	Calls Oct	Puts Apr	Puts Jul	Puts Oct
Alld Lyons (*433)	420	27	38	53	7	17	22
	460	7	18	33	31	39	43
	500	1½	7	18	68	69	72
ASDA (*110)	100	14	19	21	2	4	5½
	110	6½	13	14	5	7½	10
Brit. Airways (*207)	180	28	34	41	1	3½	5½
	200	14	17	27	5	9½	12
	220	4	9	16	16	21	23
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Option		Calls Apr	Calls Jul	Calls Oct	Puts Apr	Puts Jul	Puts Oct
Ultramar (*364)	360	22	38	46	10	17	22
	390	8	22	32	28	33	38

Option		Calls May	Calls Aug	Calls Nov	Puts May	Puts Aug	Puts Nov
Brit Aero (*492)	460	40	60	70	15	24	27
	500	19	40	50	35	37	45
BAA (*391)	390	25	35	49	13	17	20
	420	13	21	35	28	32	36
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Option		Calls Mar	Calls Jun	Calls Sep	Puts Mar	Puts Jun	Puts Sep
Amstrad (*60)	60	1½	8	11	2½	5½	9
	70	1	4	–	11	12½	–
Barclays (*564)	550	16	45	60	4	23	22
	600	2	18	34	37	38	45
Blue Circle (*217)	200	20	24	–	1	6	–
	220	3	12	21	6	17	18
British Gas (*211)	200	12	21	24	1	4	6½
	220	1	10	12	10	12	16
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Profits advance by 15% but Linfood acquisition keeps earnings in check

Enlarged Booker improves to £90.5m

By Clay Harris, Consumer Industries Editor

BOOKER, the agribusiness, food distribution and health products group which holds the copyrights to Agatha Christie's works, increased pre-tax profits by 15 per cent to £90.5m in 1989 but lifted earnings per share by only 1.4 per cent.

Whatdunnit? The main suspect for the fractional rise in eps to 37.1p (36.6p) was the dilutive effect of a two-for-seven rights issue in 1988 to finance Booker's £90m purchase of Linfood, the cash and carry chain.

But Dame Agatha herself was also implicated in the lagging earnings performance relative to pre-tax profits. The sale of US paperback rights contributed to a sharp rise to £5.2m (£2.1m) in profits attributable to minorities. Christie heirs retain a 34 per cent interest in the copyrights.

The pre-tax rise from £78.7m came on turnover ahead by 36 per cent to £2.51bn (£1.84bn). A final dividend of 13p raises the total by 8.3 per cent to 19.5p (18p).

In its main activities, Booker's agribusiness side saw profits fall to £26m (£34.1m). The global salmon glut pulled Ibec Aquaculture into loss in Canada but Scottish-based McConnell Salmon managed to break even.

The division also suffered because of losses at Middlebrook Mushrooms, which was stunted by planning delays for a new growing facility, and because farmers reduced their plantings of protein peas, a mainstay of Booker's seed business. Booker is seeking buyers for its agricultural seeds operation. It will concentrate on expanding the vegetable and flower seeds side of its Danish-based Daehnfeldt subsidiary.

Food distribution more than made up the slack as pre-tax profits rose by 66 per cent to £39.1m (£23.5m) compared with an increase in turnover of only 39 per cent. The integration of Linfood proceeded, with the closure of 38 depots. Booker is the UK's leading cash-and-carry operator with 172 outlets and a 27 per cent market share.

Booker Food Services, which is trying to develop a US-style supply business to fast food outlets in Britain, increased sales, profits and market share and won what it described as a major contract with Burger King.

Health products lifted profits to £10.2m (£7.4m). Holland & Barrett, the 180-shop retail chain, returned to profit with a sales mix of 40 per cent food, 60 per cent non-food.

Booker took majority control of P Leiner Nutritional Products, the consolidation of which was another factor in the higher minorities charge. Another was the merger of Booker's Kingswood with GK Chemists to create Britain's fourth largest chain of pharmacies. Booker owns 60 per cent of Kingswood GK.

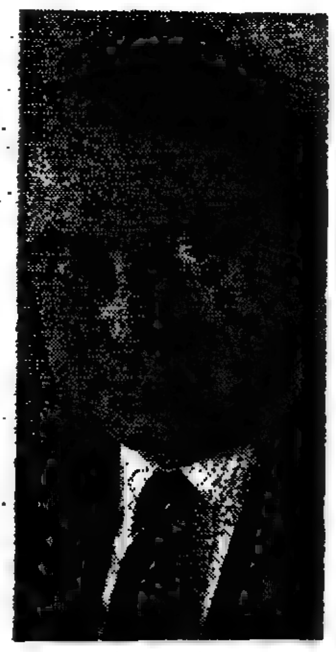
Other activities, which include Loseley Dairy Products as well as the rights to the works of Dame Agatha, Ian Fleming and other authors, accounted for profits of £15.2m (£13.7m).

Costs related to discontinued UK agribusiness activities contributed to an extraordinary loss of £8.9m (£18.1m).

Expecting sterling to fall further against the dollar, Booker has not yet hedged its North American exposure for 1990. Last year, such an operation enabled it to translate US profits at $1.51 instead of the year-end value of $1.61.

● COMMENT

Booker did well to break even in Scotland and contain its Canadian losses on salmon to less than £1m. But even as a low-cost producer, and one trying to "de-intensify" its farming methods to improve survival rates, Booker still must cope with an iceberg of frozen salmon overhanging the world market. In food distribution, the progressive introduction of a sophisticated computer system (costing £6m over three to four years) should allow the group to squeeze more benefits from the Linfood acquisition. Nevertheless, the scope for margin improvements is finite. Holland & Barrett was half a century ahead of its time, but now is buffeted by a host of copycatting latecomers to green retailing. Jonathan Taylor, Booker chief executive, maintains: "In a Holland & Barrett, you get an all-green shop. You don't have to look for a special shelf." But shopping patterns are moving against H&B unless it can distinguish itself in service. Assuming pre-tax profits of £99m, the shares stand on a prospective p/e of 10.6 at yesterday's market price of 416p, down 7p. Even a yield of 6.2 per cent does not make them immediately attractive.



Jonathan Taylor: An all-green shop at Holland & Barrett

BTR acts to gain list of Norton's shareholders

By David Owen

BTR, which last week unveiled a surprise $1.64bn (£1.01bn) cash takeover offer for Norton Company, has filed suit in Boston, Massachusetts, seeking to compel the abrasives, advanced ceramics and performance plastics manufacturer to hand over its shareholder list and related materials.

The industrial conglomerate said that the suit seeks an expeditious ruling to allow direct communication with Norton shareholders.

The group has also filed suits to try to remove the obstacles created by both the Norton shareholder rights plan and the Massachusetts business combination and control share statutes.

BTR said that these statutes could be used to prevent it either voting the shares it buys or acquiring any minority shareholding that does not accept the tender offer.

Norton has responded to the bid by urging shareholders not to sell their stock and to await the outcome of an evaluation which will be announced by March 28.

BTR intends to seek majority board representation if the offer has not been endorsed by Norton by March 30.

Invesco insurance arm sold for £43m

By Andrew Bolger

INVESCO MIM, the UK investment management group formerly called Britannia Arrow, has agreed to sell its insurance arm for £43m to Unum Corporation, the leading provider of long-term disability insurance in the US.

Unum will buy National Employers Life Assurance Holdings (NEL), the holding company for Invesco's insurance activities. NEL is a medium-sized business focused on the independent broker market. Its principal activities are life assurance, pension mortgages and permanent health insurance, which provides groups of employees with cover against disability.

Lord Stevens of Ludgate, chairman of Invesco, said: "It is our stated intention to continue the development of the group into a global fund management business. The risk nature of much of NEL's business is incompatible with this objective.

"Accordingly, we believe that shareholders' interests will be best served by the proposed disposal of NEL, the proceeds which will be used to reduce group borrowings and will provide additional resources to fund expansion of our core activities.

"Our negotiations with Unum have also created an opportunity to forge new links between our two groups. Unum has agreed that Invesco MIM should continue to manage NEL's investment portfolio and we are also discussing the possibility of managing a part of Unum's investment portfolio in the US and internationally."

NEL made pre-tax profits of £1.5m in the year to December 31, 1988. On the same date, the book value of Invesco's investment in NEL was £36.2m.

The sale is conditional on confirmation from the Office of Fair Trading that it is not the intention of the Trade and Industry Secretary to refer the proposed transaction to the Monopolies and Mergers Commission, and on the Trade and Industry Secretary having no objection to Unum becoming a controller of each of the five UK insurance companies in NEL.

Completion will take place following satisfaction of these conditions, which is expected to be before the end of June.

The consideration for the sale is £40m, subject to adjustment by reference to net assets at completion. Invesco will retain debtor balances and Unum will accept obligation of Invesco to NEL. Taken together, these conditions will add an estimated £3m to the purchase price.

Evans Halshaw thrown into reverse with £9.2m

By John Griffiths

THE DOWNTURN now gathering pace in the UK vehicle and vehicle parts markets threw Birmingham-based motor distribution group Evans Halshaw Holdings into reverse in the second half of last year.

A 15.5 per cent pre-tax profits increase at the half-way stage was converted into an 8 per cent decline by the year-end on December 31.

The drop was due to a "very disappointing" performance by the group's recently-assembled Moprod Supra parts distribution business, according to Mr Geoffrey Dale, chairman.

He insisted yesterday, however, that "1990 won't be as tough as last year".

Profit before tax fell to £9.17m compared with the previous year's £10.03m, in spite of a 37 per cent increase in turnover to £400.79m (£291.61m).

Earnings per share fell to 27.4p from 33.9p, although this reflected the full impact of a 1988 five-for-11 rights issue.

The group's mainstream car sales and servicing activities — it has more than 30 dealerships ranging from Ford to Ferrari — actually increased profits at the trading level. They were up nearly 6 per cent at £9.36m(£8.8m).

But the fact that most of the near-40 per cent rise in turnover came from higher unit sales and the acquisition of extra dealerships serves only to underline that profit margins in the volume cars business have become much tighter.

While agreeing with industry forecasts that sales of most new cars and commercial vehicles will fall this year, Mr Dale asserted that after-sales and service activities would provide "a good degree of protection" to profits.

Service and part sales through the franchised dealer networks — thus excluding Moprod Supra — now contribute 56 per cent of motor group profits, compared with 36 per cent from the sale of new and used cars.

The group should also be helped by its broad presence in the more up-market car franchises, where margins remain much stronger than in the volume sector.

The Moprod Supra operation seems likely to remain a problem area for the group. Its trading profits plunged to £318,000 last year from £1.3m, as many of the independent parts retailers it supplies took fright at rising interest rates and falling demand and cut stocks accordingly.

Moprod's poor performance is said to be in large part due to a longer and more complex process than expected in integrating the previously separate Moprod (bought in 1986) and Supra (bought in December 1986) groups.

Two other fundamental changes involved partial disengagement from the increasingly troubled contract hire sector under a deal with the TSB's Swan National leasing group; and an increased holding in a related vehicle management company, Evans Halshaw Financial Services.

With net assets of £40m swelled by a property revaluation indicating £15m over net book value, and a £4.5m pension scheme surplus, the group is well placed to resume the acquisition trail this year, said Mr Dale.

There is a recommended final dividend of 7.65p, making a total of 11.25p(10p).

UK COMPANY NEWS

Increase in equity base leaves uninspiring bottom line

Acquisitions help boost Canning

By Richard Tomkins, Midlands Correspondent

W CANNING, the speciality chemicals and electronic components group that has expanded rapidly on the Continent, notched up a 28 per cent increase in pre-tax profits to £9.03m for 1989.

A big increase in the number of shares in issue, however, left the company struggling to register an advance at the bottom line: earnings per share were 21.7p against 21.3p last time.

A final dividend of 4.85p is recommended, making a total for the year of 7.15p (6.5p).

The profits advance was given a boost of about £1.3m by four Continental acquisitions during the year: Gamlen, Levenit and Reico in the speciality chemicals division and ECC Elettronica in electronic components.

The group also had the benefit of a £400,000 cut in interest charges arising from October's £16.7m rights issue.

Speciality chemicals increased profits from £4.14m to £5.99m. A downturn in UK demand towards the end of the year was outweighed by strength in exports and in Continental operations.

Ron Brown, finance director (left), and David Probert, chairman: expecting a good performance overall.

Electronic components increased profits from £3.24m to £3.77m. A better performance was hindered in the last quarter by margin pressure in the market for semiconductors and by a cooling of the Spanish economy.

Group turnover was £108.7m (£80.3m). An extraordinary debit of £3.83m was attributable to a loss of £2.6m on the disposal of John Betts Refiners, a provision of £1.6m against the investment in Medserv, and a £400,000 profit on the sale of the group's stake in Carbo.

Canning said that although the oversupply in Continental semiconductor markets had carried through into 1990 it expected a good performance overall. A debt/equity ratio of just 12 per cent, meanwhile, left room for further expansion.

● **COMMENT**

Canning increased its equity base from 18m shares to 28m in 1989, and yesterday paid the price in an uninspiring bottom line that left the shares 6p off at 214p. Partly that reflects the disappointments of a last quarter that left profits short of expectations, but gloom over the outlook should not be overdone. With £500,000 of losses from the silver refining operation now absent, a full year of the rights issue proceeds adding a further £1.8m or so, and last year's acquisitions in for the whole 12 months, the group will struggle to make less than £12m next time even if there are no further acquisitions and the existing operations stand still. An earnings per share increase of 11 per cent to 24p is nothing to set the world alight, but at least it looks – from this distance – something like the worst possible scenario. On that basis, and given the relatively low exposure of the company to the UK market, a prospective p/e ratio of under 9 looks undemanding.

Colorgraphic ahead to £3.78m

By Clare Pearson

ACCOUNTING ERRORS at a direct mail subsidiary shaved about £500,000 from pre-tax profits of Colorgraphic, the USM-quoted advertising products and annual reports printing concern, last year.

But the sale of a property in Edinburgh, which gave rise to a £299,000 exceptional profit, helped lift the pre-tax result to £3.78m (£2.98m), a 27 per cent increase.

Earnings per share, which without this profit would have been up 8 per cent, advanced 17 per cent to 19.15p (16.34p).

Mr Nick Winks, chief executive, warned the stock market of the accounting problem last December. He said yesterday he thought Colorgraphic would have made about £4m pre-tax profits for the year, without the impact of the problem and the property profit.

He said the accounting problem had now been sorted out. Believed to have occurred at the Colorgraphic subsidiary in Nottingham, it had given rise to understating of overheads and overstating of stocks.

Mr Winks said the trading outlook for 1990 was encouraging. "The UK market for direct response products is continuing to grow, despite the general economic slowdown. Our orders for January and February were 17 per cent above those for the same period last year and margins were firmer."

Colorgraphic also announced yesterday the acquisition of the UK-based Pippbrook Software for an initial consideration of £200,000 and a maximum £2.8m deferred.

Capital investment of nearly £5m and a series of acquisitions were reflected in a rise in net interest payable to £551,000 (£153,000) last year.

The company said it continued to look for acquisitions. In particular, it was searching for opportunities to enter the West German market, to expand in Europe, and to move into telemarketing in the UK.

The main acquisitions last year were of CCS, a UK database marketing concern, and of Eikelenboom, a Dutch company which provided the basis of a sales operation on the Continent.

Without the acquisitions last year, turnover, which was £54.76m (£34.67m), would have risen by 34 per cent. A final dividend of 4.88p is proposed, making 6.7p (5.71p) for the year.

Lloyd Webber will not be forced to sell Palace Theatre

By Andrew Hill

Mr Andrew Lloyd Webber said yesterday that London's Palace Theatre, which is part of his stock market vehicle Really Useful Group, was not for sale.

The composer, who is in California, was responding to speculation that Mr Robert Holmes à Court might try to force him to sell the Palace by retaining a minority stake in RUG, which Mr Lloyd Webber is trying to take private through a £77.4m buy-out.

Mr Lloyd Webber said the Palace, where the musical Les Misérables is playing, would be put into a trust.

He maintained that this had always been his intention.

On Friday, the Australian financier raised his stake in RUG to 4.33 per cent, puzzling the City by buying shares at as much as 4p above the recommended offer price of 233p.

Mr Holmes à Court was still unavailable to comment on the reasons for his stakebuilding yesterday.

He holds the shares through Stoll Moss Theatres, the West End theatre group which belongs to his private vehicle, Heytesbury (UK).

Salomon Brothers International, which is advising Mr Lloyd Webber, said yesterday that there would be a "nuisance factor" if Mr Holmes à Court succeeded in winning more than 6 per cent of the company, but that the composer would have no difficulty funding the buy-out.

Mr Lloyd Webber, who is using £52m loan facility from Coutts, now owns or has received acceptances for 82.26 per cent of the company's equity.

The composer has to receive acceptances representing more than 94 per cent of RUG's shares before he can mop up the outstanding shareholdings compulsorily.

RUG's most valuable assets are the copyrights to Mr Lloyd Webber's more recent musicals, which are worth between £50m and £60m, but the need to raise money for refurbishment of the Palace was one of the reasons why the group was floated three years ago.

NEWS DIGEST

Turriff advances to £5.82m

STRONG GROWTH in its property and construction subsidiaries helped Turriff Corporation, the construction, plant hire, personnel and marketing group, to a 34 per cent increase in pre-tax profits to £5.82m for 1989.

The advance from £4.35m was struck on turnover which rose 39 per cent to £151.52m (£109.04m), and earnings per share improved 50 per cent to 53.6p (35.7p).

A final dividend of 10.75p is proposed, making a total of 15p (11.5p) for the year, an increase of 30 per cent.

Construction and property subsidiaries now account for more than 40 per cent of the company's profits. Although the decline in the housing market meant that the company sold only 55 homes, the reduction in profits from this sector was covered by the increased contribution from commercial property.

70% improvement at Sheffield Insulations

In its first set of results since flotation on the main market in May, Sheffield Insulations Group lifted pre-tax profits 70 per cent from £3.22m to £5.48m.

Mr Norman Adsetts, chairman of this distributor of thermal insulation and related products, said that the overall performance in 1989 had been excellent in spite of the slowdown in new housing.

He added that new building regulations – to be introduced from April – in which insulation standards in new construction are to be increased, along with the concern for environmental issues, would have a significant effect on the future market for energy conservation products.

Turnover rose more modestly to £107.56m (£101.8m) and the profits were boosted by exceptional credits of £732,000 (£35,000) from property sales. Earnings per share grew to 17.4p (12.4p) basic and to 15.9p fully diluted. The proposed final dividend is 3.3p.

Port side and cut in interest lifts J Fisher

A sharp rise in profits from port operations and lower interest payments helped James Fisher & Sons, the shipping group, increase pre-tax profits by 38 per cent from £3.06m to £4.23m in 1989. Turnover was slightly down at £26.78m, against £27.59m.

Shipping profits edged ahead from £3.59m to £3.69m, while the ports contribution grew to £542,285 (£43,885). Investment income expanded from £460,459 to £659,529 and interest payments were cut to £662,945 (£1.04m).

After tax of £1.11m (£1.04m) earnings per 5p share came to 13.04p (8.44p). Directors recommended a final dividend of 3p for a total of 5p (4p).

Benson incurs £490,000 deficit

Benson Group, the heating, towing bracket and agricultural machinery manufacturer, incurred a deficit of £490,000 for the six months to end-November.

The Powys-based group achieved taxable profits of £516,000 in the corresponding period of the previous year.

The result was struck after interest charges more than doubled to £252,000 (£107,000). The loss per 10p share worked through at 1.27p (earnings of 2.01p).

Edinburgh Oil & Gas cuts losses

Edinburgh Oil & Gas, the USM-quoted independent producer, cut its losses from £96,000 to £50,000 for the year to December 31 1989.

Mr Alan McInroy, chairman, said the results were "mainly of historical interest and have little relevance to the present position of the company".

Turnover fell from £52,000 to £13,000, and there was a loss per share of 0.39p (0.75p).

Since the year-end it has acquired oil and gas licences which have enabled it to double its offshore presence and increase output to more then 110 barrels a day.

Interest keeps Scott & Robertson static

Scott & Robertson, the polythene film manufacturer, yesterday reported virtually static pre-tax profits for 1989.

However, the outcome – up from £7.73m to £7.78m – was struck after a sharp increase in interest charges to £2.34m (£1.27m). Profits at the operating level expanded by 16 per cent to £10.66m. Turnover rose to £153.46m (£142.68m).

The group merged with Alida Holdings last June.

Tax took £2.43m at an increased rate of 31.2 per cent (£1.99m at 25.8 per cent), resulting in fully diluted earnings falling to 18.69p (22.56p). The recommended final dividend is raised to 4.5p for a total 50 per cent higher at 7.5p (5p).

BOARD MEETINGS

The following companies have notified dates of board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official indications are not available as to whether the dividends are interims or finals and the subdivisions shown below are based mainly on last year's timetables.

TODAY

Interims- HTV, LASMO Oil Production Stock.
Finals- ASEA, BSG International, Cambridge Electronic Industries, Ferrum, Geest, Kerry, New Guernsey Securities Trust, River & Mercantile American Capital & Income Trust, Standard Chartered.

FUTURE DATES

Interims-	
Castle Communications	[illegible]
IRCO	[illegible]
Kwik Save	May. 2
TIP Europe	Apr. 3
Finals-	
Boustead	Apr. 4
Capital & Regional Props	Mar. 29
Claytorn Properties	Mar. 28
Computer People	[illegible]
Copymore	Mar. 22
Dunlop House	Mar. 29
Kingfisher	Mar. 27
Peninsular & Oriental	Mar. 27
Rockware	Mar. 28
Scottish Heritable Trust	Mar. 27
[illegible]	Mar. 21
Taylor Woodrow	Apr. 10
Thurgar Bardex	Mar. 29

UK COMPANY NEWS

Cement group advances 24% in spite of housebuilding decline

Rugby tops £89m but warns of downturn

By Andrew Taylor, Construction Correspondent

RUGBY GROUP, the cement, joinery and steel reinforcement group, shrugged aside the sharp fall in UK housebuilding last year to increase pre-tax profits by some 24 per cent from £72.64m to £89.79m.

It warned, however, that cement sales by UK cement manufacturers could fall by up to 10 per cent this year with the decline in housebuilding brought on by high interest rates expected to spread to other areas of construction.

Mr Andrew Teare, managing director, said the housing market was unlikely to pick up until 1991.

Private sector commercial and industrial building was likely to decline as a result of lower tenant demand triggered by high interest rates. Profits this year were therefore expected to be flat.

Rugby is Britain's third largest cement company. It also has large joinery and steel reinforcement subsidiaries in the UK as well as joinery interests in the US and Australia and steel and glass operations in continental Europe.

Its businesses are almost entirely dependent upon demand from construction industries.

Turnover during the 12 months to end-December rose by 30 per cent from £516.51m to £670.76m. Earnings per share, on a lower tax charge, increased 26 per cent from 16p to 20.1p.

The main engines of growth last year were UK cement profits which jumped 43 per cent from £29.15m to £41.64m; profits from sales of steel reinforcement to the UK construction industry, including the Channel tunnel project, which rose 28 per cent from £4.83m to £6.19m and Australian cement and lime profits, ahead 35 per cent from £7.83m to £10.55m.

There was also the first full year profits of £5.82m from Stegbar, the Australian doors, windows and shower screen group.

A sharp fall in housebuilding in the south of England and also in the north east and south eastern US hit Rugby's joinery profits on both sides of the Atlantic. In the UK these fell by just over 4 per cent from £22.8m to £21.8m. US joinery profits fell by 54 per cent from £5.16m to £2.37m.

An extraordinary provision of £3.48m covered the cost of selling Baltic, a small loss making Australian joinery business acquired in 1988, and joinery interests in Texas. It included a provision of £2.84m for non payment of money which Rugby claims is due to Baltic.

A final dividend of 3.6p makes 6.45p (5.2p) for the year. Mr Teare said group borrowings had been wiped out by the sale of Baltic and the Texas branches.

● COMMENT

UK cement manufacturers will this year face their first real test since the common price agreement, which allowed them to operate a cement price cartel, was abandoned three years ago. Since then UK cement sales have risen sharply – so much so that almost 4m tonnes of cement, out of total UK sales of 18m tonnes, was imported last year. Rugby gained market share last year when it says it increased sales volume by about 7 per cent compared with about 4 per cent for the industry generally. Blue Circle, the market leader, appears to have been the loser. Price competition is likely to get even tougher this year particularly if Rugby is correct and industry sales of cement fall by 10 per cent. Meanwhile the UK joinery business could see a further dip this year as house building and residential repair and maintenance work continue to labour under high interest rates. The Australian and Continental businesses however are thriving and Rugby should be capable of matching last year profits of approaching £90m. Same again earnings would put them on a p/e of almost 8 which does not seem unfair given the difficult conditions ahead.

Andrew Teare: housing market unlikely to pick up until 1991

VPI suspends head of NY arm

By Nikki Tait

VPI GROUP, the ailing UK-based public relations consultant, yesterday suspended Mr Don Carter, the founder and former head of its New York proxy solicitation business, after reports in the US Press that he planned to plead guilty to two felony charges of grand larceny and income tax evasion.

From New York, Mr Angus Maitland, VPI's chief executive, said that he had spoken to Mr Carter and asked him to confirm the substance of a report in the Wall Street Journal.

This included a statement, said to have been faxed to the newspaper by Mr Carter, saying that he was "sincerely sorry for the injury caused to the clients in question". Mr Carter, said the article, confirmed his forthcoming guilty plea.

As a result of that conversation, Mr Maitland continued, Mr Carter's suspension from all further duties was implemented.

Yesterday, no one at Mr Carter's New York lawyers, Gold & Wachtel, was available for comment.

Mr Carter had already stepped down from any executive boardroom position at VPI earlier this year. However, he remained a non-executive director and also had some residual client relationships. VPI described these as relatively minor. Mr Carter remains on the VPI payroll.

VPI acquired Carter Organisation in the summer of 1987, when takeover business was in full swing in the US. It paid an initial $51m and subsequently made a further stage payment of $25m.

However, not only did US bid activity dwindle, but in September last year, New York State investigators started to look into the Carter Organisation after allegations that the company might have padded its bills to clients.

The investigation, which was being conducted before a State Grand Jury, also looked into the tax affairs of Mr Carter. VPI stressed yesterday that its subsidiary had co-operated fully with the State of New York throughout the inquiry.

Asked whether VPI planned to take any action against Mr Carter if guilty pleas were made, Mr Maitland said that if there were any undisclosed liabilities in Carter Organisation at the time of purchase, VPI had certain warranties.

That, he said, was "not necessarily" the only course of action. "If there is any harm to VPI from this, we will have to consider our options," he added.

VPI's shares, which have already tumbled sharply in recent months, fell ½p to 24p yesterday.

21% stake in NSM up for sale

By Nikki Tait

NSM, the opencast coal-mining company born out of the Burnett & Hallamshire group, said yesterday that it still hopes to remain independent despite a formal announcement from the Anglo United mining company that it is looking for a purchaser of its 21 per cent stake in NSM.

Anglo said that it wants to "reinvest the proceeds in the core businesses of Anglo."

At the weekend, there were suggestions that Anglo – by looking for a single purchaser of the shares rather than simply placing out the holding – saw the most "appropriate" buyer as being a potential bidder for NSM.

Yesterday's formal announcement from Anglo was more tactful, talking only of seeking "a suitable corporate purchaser".

The stake is being sold via Salomon Brothers, the US investment bank which took a near-5 per cent block of NSM shares from Anglo in a "bought deal" last year.

NSM said yesterday that the announcement of Anglo's planned sale was no surprise, and that it was already aware of people being approached over the holding.

However, its advisers indicated that their client intended to "wait and see" what solution Anglo came up with, rather than intervene directly in the sale process.

NSM shares gained 4p at 90p yesterday, capitalising the entire group at £198.8m.

City Gate recommends £22m takeover bid

By Andrew Bolger

CITY GATE ESTATES, the London-based property developer headed by Mr James Gulliver, is recommending a cash offer worth £22.1m for the company from a Netherlands subsidiary of Fastighets Accura, which has property investments in Sweden, Spain, West Germany and the UK.

The offer is worth 140p for each ordinary City Gate share and 139.1p for each preference shares. Both types of share closed at 95p last night, 40 minutes before news of the deal was released.

Accura said it had received certain undertakings from the directors of City Gate and some of their family trusts to accept the offer in respect of 3.6m City Gate ordinary shares, representing 23.3 per cent of the equity.

The board of City Gate will unanimously recommend shareholders to accept the offer.

City Gate said that in common with most property developers operating in the southern half of England it was facing difficult trading conditions which might continue for as long as interest rates remained high; this was reflected in a substantial decline in the open market value of City Gate's property interests since March 31 1989.

Accura said it was seeking to expand internationally. This acquisition gave it the opportunity to acquire a proven management team, which would benefit from the financial stability that a large, privately-owned group could provide in today's markets.

City Gate, which was launched on the USM in 1988, made a pre-tax profit of £5.3m on turnover of £20.1m in the year to March 31 1989. In the six months to September 30 1989, City Gate made £5.6m on turnover of £13.2m.

At the time of the interims, the board said that pre-tax profits for the full year would not be significantly higher than the six-month figure due to the timing of completions, which had fallen mainly in the first half.

Metalrax advances 16%

METALRAX Group, the Birmingham-based specialist engineer, lifted taxable profits for 1989 by 16 per cent to £7.06m.

The increase from the previous year's £6.09m came on turnover ahead a commensurate amount to £60.24m (£52.12m).

The tax charge was up from £2.06m to £2.38m and earnings per 5p share worked through at 8.79p, compared with 7.74p before.

The proposed final dividend of 2.84p brings the total for the year to 3.8p (3.164p adjusted).

For the 21st consecutive year directors are making a one-for-10 scrip issue, involving the capitalisation of £266,140 of reserves.

Blue Arrow first quarter profits fall to £8.1m

By Clare Pearson

BLUE ARROW, the employment agency which plans to change its name to Manpower, yesterday reported first quarter pre-tax profits down from £9.86m to £8.12m.

The planned name change and move to headquarters in Wisconsin will mark the final reversal of Blue Arrow's audacious $1.3bn purchase of Manpower in 1987. It will also distance the company from the City scandal that emerged from the handling of Blue Arrow's rights issue that autumn.

Mr Mitchell Fromstein, the current chief executive, plans to sell-off most of the non-Manpower subsidiaries, in the UK and elsewhere, to reduce debt.

The three-monthly statement is made to comply with US regulations arising from the high proportion of the company's shareholders, estimated at 75 per cent, who are in the US.

It is stated in accordance with UK accounting practices. Figures published in the US yesterday showed a loss at the pre-tax level, reflecting a difference in the treatment of goodwill arising on the acquisition of Manpower.

Manpower, itself, made £13.63m at the pre-tax level, a 13.6 per cent increase. By contrast the other Blue Arrow subsidiaries made lower profits, reflecting both lower margins and a slowing in growth. Most of these are earmarked for sale to reduce debts.

Group turnover for the quarter was £436.57m (£357.46m). Operating profit was £14.55m (£16.24m) after interest and similar charges took £5.52m (£4.89m).

Group overheads, representing those corporate costs not allocated to operating subsidiaries, amounted to £909,000 (£1.5m). Earnings per share were 0.7p (0.9p).

Blue Arrow passed its dividend for the last financial year when it reported, on a UK accounting basis, pre-tax profits £10m lower at £85m.

There was also a £49m extraordinary write-off, mostly relating to a controversial £25m loan to help finance the America's Cup challenge.

Scholes Group hit by housing decline

The impact of high interest rates on house construction was a major factor in the 34 per cent decline in pre-tax profits reported in the six months to end-December by Scholes Group.

The company, which has been making acquisitions with a view to shifting away from the housebuilding and refurbishment business, yesterday reported that profits had fallen from £3.86m to £2.53m from turnover little changed at £21.88m (£22.31m).

Scholes said the acquisition of Dorma Smith, the industrial switchgear specialist, would reduce its dependency on the housing business to some 55 per cent of turnover.

After tax of £923,000 (£1.39m), earnings per share were 4.6p (7.3p). The interim dividend was 2.6p (same).

Acquisitions provide growth spark as Hickson tops £37m

By Jane Fuller

HICKSON International, the chemicals group based in Castleford, Yorkshire, increased pre-tax profit by 38 per cent in 1989 in spite of a cut in earnings from its most UK-bound division.

The £37.12m taxable profit was made on turnover of £404.92m, 44 per cent up on 1988. Virtually all the growth came from acquisitions.

An operating profit of £42.16m (£28.58m) was eroded by a more-than-doubled interest charge of £5.31m (£2.1m). Gearing rose from 55 per cent to 82 per cent.

The engine room of the business is the chemicals division, which accounted for 44 per cent of sales and 63 per cent – £26.4m – of profit.

This included a £9m profit from two 1988 acquisitions: Manro, based near Manchester, which makes surfactants for detergents and toiletries, and Kerley, of Phoenix, Arizona, which reprocesses sulphur from oil and gas refineries to produce ingredients for agricultural products.

Mr John Marvin, chairman, said margins had peaked in the middle of the year because of a shortage of capacity. Since more had become available, "prices have gone off the boil a bit."

The rest of group sales came roughly equally from the timber protection and merchant distribution divisions, with the former more than doubling its profit to £10.9m and the latter slipping to £4.9m.

The geographically diversified timber protection wing saw margins improve after the elimination of losses in Singapore and New Zealand.

Elsewhere, buoyant demand for coatings in Europe was offset by problems in preservatives across the Atlantic. Wolman, the former Koppers subsidiary bought from Beazer, had a disappointing year because of a downturn in the market and a rough ride from competitors.

In the UK-based merchant distribution division, which sells floor coverings, suspended ceilings and office partitions, demand was depressed by high interest rates.

Earnings per share grew by 16 per cent to 23.87p (20.57p). A final dividend of 5.4p makes a total of 8p (6.75p).

● COMMENT

Thanks to the merchant distribution business, half of Hickson's sales lie in the interest-rate-becalmed UK. In the US timber protection market, Wolman should have an easier year but hopes of a real upturn are still tentative. This leaves expectations lying even more heavily than usual on the chemicals engine room. Yet how much room for improvement can there be on a year in which margins peaked? The company points to further benefits from previous acquisitions and its confidence is illustrated by plans to spend £33m expanding capacity. Its debt sounds worrying, but if its convertible capital bond issue is treated as equity, gearing falls to 33 per cent. A pre-tax profit forecast approaching £39m gives an undemanding prospective p/e of less than eight. The share price has drifted down as what one analyst described as "stale takeover bulls" have tired of speculation about the 13 per cent stake held by Mr Jack Dellal's Allied Commercial Exporters.

Runciman shares rise 5p after advance to £5.6m

By Clare Pearson

SHARES IN Walter Runciman, the shipping, security equipment and insurance group, yesterday gained 5p to 540p after it unveiled pre-tax profits for 1989 slightly ahead of expectations at £5.6m, a 38 per cent increase.

The announcement was brought forward as part of Runciman's defence armoury against the unwelcome £47.8m bid from Avena, a Swedish property, security equipment and construction concern, which is pitched at 520p cash per share.

Runciman also yesterday announced an increase in the annual dividend to 15p, 1.5p above the minimum forecast during its successful defence against an earlier hostile offer from Telfos, the UK engineering concern, in 1988.

Viscount Runciman, chairman, pointed out that these results reduced Avena's offer's exit multiple to just 12.5 times historic earnings.

"This set of results . . . shows our strategy for sustained growth is the right one . . . Avena's highly leveraged bid . . . is by any standards grossly inadequate," he said in yesterday's defence document.

Among other criticisms of Avena's offer document, Runciman says the Swedish bidder had made use of data showing time charter rates for liquid petroleum gas carriers which "completely misses the point."

Avena had included a chart which showed rates for 2,500 cbm carriers declining in 1989. This was in support of its claim that Runciman shareholders were risking exposing themselves to cyclical downturn in the shipping market market by holding onto the shares.

But Runciman said this chart was irrelevant to its own operations, which form part of the Unigas consortium. The consortium had seen contracted rates increase during last year and grow still further during the first two months of 1990.

Focusing on Avena's level of gearing, Runciman said it stood at 665 per cent based on the latest available information: the pro-forma balance sheet as at end-December 1988 and indebtedness as at end-December 1989. This was before taking account of the £40m debt arranged to launch the bid.

But Mr Michael Glazebrook of Enskilda Securities, financial advisers to Avena, swiftly dismissed this calculation as meaningless.

"Avena's 1989 results, to be published on Wednesday, will dispel the contention that the bid is highly leveraged," he said.

Runciman's turnover last year was £42.43m (£32.66m). Pre-tax profits broke down into £4.16m (£2.93m) for transport, £1.15m (£776,000) for security, £207,000 (£273,000) for insurance, and £96,000 (£100,000) for the holding company. Earnings per share rose to 41.5p (29.4p).

DIVIDENDS ANNOUNCED

		Current payment	Date of payment	Corres - ponding dividend	Total for year	Total last year
Alba	int	1.5	July 2	1.5	-	4.35
Booker	fin	13	July 2	12	19.5	18
Canning (W)	fin	4.35†	-	5	7.15	6.5
Carbo	fin	4.3	May 31	3.6	6.8	5.7
Colorgraphic §	fin	4.66†	May 11	4.05	6.7	5.71
Evans Halshaw	fin	7.65†	May 15	7	11.25	10
Fisher (James)	fin	3	-	2.05	5	4
Hickson Intl	fin	5.4†	May 31	4.5	8	6.75
IMI	fin	5.7	May 21	5	9.5	8.15
Llereed	fin	3.9	-	3.25	5.7	4.75
Metalrax	fin	2.84	June 1	2.36*	3.8	3.16*
Refuge	fin	17	-	14.5	24.25	21
RPS §	fin	1.6	May 3	1.2	2.8	2.2
Rugby	fin	3.6	-	2.9	6.45	5.2
Runciman(Walter)	fin	9†	Jul 2	6	15	10.5
Scott/Robertson	fin	4.5†	June 1	3.8	7.5	5
Scholes	int	2.6	-	2.6	-	7.82
Shelf Insulation	fin	3.3	May 3	-	3.3	-
Third Mile Inv	fin	2.05	-	2.05	3.35	3.35
Turriff	fin	10.75☆	-	8	15	11.5
Tyne Tees TV	fin	13	May 14	12.25	19	17.25
Wassall	fin	1.45†	May 25	1	2.2	1

Dividends shown pence per share net except where otherwise stated. *Equivalent after allowing for scrip issue. †On capital increased by rights and/or acquisition issues. §USM stock. §§Unquoted stock. ♦Third market. ☆Scrip option.

UK COMPANY NEWS

Ambitious acquisition programme pays dividends at former shoe retailer
Wassall exceeds its forecast with £3.23m

By Andrew Hill

AN AMBITIOUS acquisition programme helped lift pre-tax profits at Wassall last year. The outcome of £3.23m beat the group's own forecast of £3m and far exceeded 1988's profits of £502,000 which covered an 11-month period.

In 1987, when it was a little-known shoe retailer, the group made just £56,000.

The mini-conglomerate, which already has interests in luggage and office furniture, made the forecast as part of its successful £50m bid for Metal Closures Group, the print and packaging company.

Wassall also beat its dividend forecast of 2p for the year: it is recommending a final of 1.45p, making a total of 2.2p (1p)

Turnover increased from £7.96m to £38.94m, while earnings per share rose to 10.7p (6.1p).

Wassall won the hostile bid for MCG in January and the packaging group will begin to contribute to group profits this year. The mini-conglomerate is currently examining its new subsidiary's operations, which include the core business manufacturing metal and plastic bottle-tops, as well as flexible packaging and pre-press services companies.

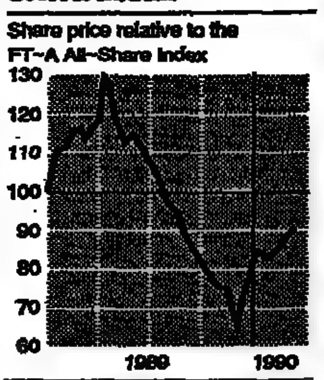
Mr Christopher Miller, chief executive, said yesterday: "Undoubtedly there will be candidates for disposal out of non-core businesses."

Gearing stood at about 25 per cent at the end of the year, but the cash-and-shares bid for MCG has pushed borrowings up to nearly 150 per cent of shareholders' funds. Following disposals, Mr Miller said he hoped the figure would come down to well under 100 per cent by the end of 1990.

Hille Ergonom, the furniture manufacturer which was trading at a loss when purchased in January 1988, made a profit of about £1.4m for the calendar year, after Wassall decentralised management of the subsidiary and cut costs. The furniture division as a whole recorded trading profits of £3.07m on turnover of £30.2m during the year.

Travel goods – the luggage division which trades principally under the Revelation and Antler brand names – made profits of £1.14m on sales of £8.01m.

J.W.Wassall
Share price relative to the FT–A All–Share Index



Christopher Miller: non-core disposal candidates

● COMMENT

The MCG acquisition may prove the first real test of Wassall's ambition to become another Hanson, the conglomerate which was the training ground for two members of its management triumvirate. MCG was the largest bid so far and the first hostile takeover; previous acquisitions have been agreed (Hille, Antler) or arranged through family connections (Evertaut, Toone). Judging from the effect on Hille of cost-cutting and strategic reorganisation, Wassall management could have a dramatic effect on the bottle-top manufacturer, which had to forecast a downturn in 1989 profits – from £8.2m to £4.5m – as part of its bid defence. Wassall is off the acquisition trail for the time being, but 1990 should see some MCG disposals, a strategy familiar to Hanson-watchers. If Wassall passes the test it could make more than £10m before tax this year. That leaves the shares – up 1p to 215p in yesterday's weak market – on a demanding prospective multiple of 14 or more, but institutions who bought in at the beginning will be holding for the longer term.

NEWS DIGEST

Alba falls to £2.74m in first half

ALBA, a manufacturer and supplier of audio, video and electronic equipment, experienced a fall in profits of £266,000 to £2.74m pre-tax for the half year to the end of December, 1989.

Turnover improved from £44.84m to £56.32m. Both Alba Radio and Bush Radio performed well against the trend of trading in the UK, increasing market share in several areas. Overseas sales rose from £7.7m to £14.1m.

Operating profits were virtually unchanged at £3.01m (£3m). Pre-tax profits were struck after taking account of a share of losses from the related company, Network One.

The interim dividend is being maintained at 1.5p from earnings of 5.21p (5.69p). The company has changed its year-end to March 31 1990 and the current period will be for nine months.

Gaskell hit by interest charges

A near fourfold increase in interest charges took its toll on Gaskell, the carpet manufacturer, which announced 1989 pre-tax profits down to £2.14m, from £2.31m.

Mr Edward Andrew, chairman, said interest charges had gone up from £165,000 to £626,000 on the capital investment programme. The developments did not contribute fully to results but some at various plants were coming on stream.

He said the current year had started well and order books were in good health. The retail side dealt mainly with the commercial sector which should remain buoyant. Exports were receiving "considerable attention."

Sales rose 23 per cent to £37.64m (£30.55m) while trading profit was 12 per cent higher at £2.76m (£2.47m) from product ranges which included Axminster and tufted carpets, tiles, underlay, sports surfaces, and automotive upholstery.

Earnings fell to 27.9p (30p) but the total dividend is raised to 8.3p (7.5p) via a final of 5.5p.

Home sales still depressed at Sirdar

Sirdar, the specialist textile group, saw pre-tax profits fall from £3.85m to £3.19m for the six months to end-December.

And if the present trends continued for the rest of the financial year, it was reasonable to expect approximately the same level of profit for the second half, said Jean Tyrrell, chairman.

The interim dividend is held at 1.65p although earnings dropped to 3.57p (4.45p).

Group sales in the first half fell to £28.09m (£29.5m) and operating profit to £3.6m (£4.12m).

The chairman said the projected gradual fashion swing back to the knitted look could only happen in a normal winter. With the opposite occurring, it was inevitable that home sales continued to be depressed, but exports were well ahead.

Burmatex (carpet and tiles) had a very good six months, but at Eversure (household textiles) sales and profits were both lower.

Contribution from the Cedar Court Hotel did not match expectations, but that situation had been corrected.

Brompton returns to dividend list

A return to the dividend list and a substantial advance in profits was announced by Brompton Holdings, formerly OIS Group, for the year to December 31.

Pre-tax profits, before exceptional items, of this USM-quoted company were up from just £24,000 to £1.46m.

The proposed dividend, the first paid since 1985, is 2p from earnings of 8.2p (loss 3.3p) per 20p share.

Brompton is selling off its non-core activities, which will substantially reduce borrowings and interest costs, and is concentrating on building up the core activities of specialised inspection, testing and safety monitoring for the power, nuclear and oil industries.

Mr Paul Bristol, chief executive, said the company had developed a sound base for its operations in the UK, Middle East and Far East and was seeking to expand and establish a significant position in Europe.

Turnover was up from £12.24m to £52.28m and operating profit to £2.34m (£251,000); interest payable jumped from £227,000 to £883,000. Exceptional items amounted to a debit of £142,000 (£296,000) and there were tax credits of £105,000 (£58,000).

West Germany helps Carbo to over £4.5m

Strong overseas earnings helped Carbo raise pre-tax profits by some 19 per cent from £3.83m to £4.55m in the year to December 31. Turnover showed an 11 per cent gain from £60.43m to £66.92m.

The economies of the main markets in which Carbo operates – abrasives and specialist resins, polyester concrete drainage and injection moulded plastic products, varied considerably last year said Mr Trevor Egan, chairman.

In particular, Carbo's strength in West Germany enabled the group's businesses in that country to make a significant contribution to the results. However, Mr Egan warned of a slowing down in the UK in the second half of 1989 which has continued in the current year.

Earnings per share improved to 20.1p (17p) while the total dividend, with a recommended final of 4.3p, goes up from 5.7p to 6.8p.

Record has 43.4% of Easterbrook

Record Holdings, the power tool maker, said that it now owned or had received acceptances in respect of 43.4 per cent of the shares in Easterbrook Allcard, the privately-owned Yorkshire cutting tools company for control of which it is fighting James Wilkes, the engineering and packaging company.

Wilkes has claimed receipt of irrevocable acceptances in respect of slightly more than 50 per cent of the shares for its £11.2m contested bid which was launched before Record's £13.2m recommended offer.

But holders of some 10 per cent of the shares claimed by Wilkes are currently contesting in court the validity of the powers of attorney by which they were accepted. These are expected to come for trial in May.

Record said it has acceptances in respect of 599,259 shares (34.1 per cent), and it owns a further 163,368. It has extended its offer until March 30.

Improved margins at Thomas Walker

Improved margins enabled Thomas Walker, a maker of metal smallwares for the clothing industry, to lift pre-tax profits by 11 per cent in the half year to December 31 1989.

Profits came to £167,000 (£150,000) and were gained from turnover only 3 per cent ahead to £1.75m (£1.71m). Earnings were 1.787p (1.607p) and the interim dividend is held at 0.26p.

Directors said trading was slow up to October, improved in the following three months, but since then had felt the effects of high interest rates in the retail trade.

Ranges of new products gave encouragement, and careful housekeeping designed to maintain progress and the cutting back of less essential projects kept the company in a healthy state.

GR (Holdings) turns in £895,000 midway

GR (Holdings) produced pre-tax profits of £895,000 in the half year to December 31 1989 for earnings of 3.8p.

In the 1988 period the group made £6.49m, which included some £5.6m profit on the sale of a refurbished office building in Holborn, London. Earnings were 31.7p, with 27.6p being attributed to the sale.

GR operates Grayshott Hall, a health and fitness centre, deals in property, processes and merchants sheepskins and furs, and makes sheepskin garments.

Turnover in the half year fell from £4.57m to £4.15m.

The interim dividend is again 0.4p. Last year there was also a special payment of 30p, costing £3.95m.

CIA tops flotation forecast with £1.8m

CIA Group, the media independent, has exceeded the profits forecast of £1.7m it made when it floated on the USM last October.

The taxable outcome for 1989 was more than doubled at £1.82m (£862,000) and was struck on turnover which vaulted to £139.91m (£54.17m).

Earnings per share worked through at 9.14p (5.71p) basic and 8.29p (5.2p) fully diluted. As CIA stated in its prospectus, the maiden dividend will be the interim for 1990, payable in October.

UK COMPANY NEWS

Advertising downturn cuts Tyne Tees to £7m

By John Thornhill

TYNE TEES Television, the ITV contractor for the north-east and North Yorkshire, suffered a 9 per cent fall in annual pre-tax profits as it encountered a downturn in advertising revenue at the end of 1989.

Although 20 per cent ahead at the interim stage, pre-tax profits fell sharply in the second half resulting in a yearly outcome of £7.1m (£7.82m).

The company said that the continuing stagnation in advertising revenue would not change overnight but that demand was likely to pick up later in the year.

Tyne Tees expected to benefit from this year's late Easter and the strength of regional advertising stemming from the forthcoming Garden Festival in Newcastle.

"This gives us confidence that we will see growth (in advertising revenue) of 4½ per cent this year," the company said.

Turnover in 1989 was 14 per cent higher at £68.83m. Income derived from advertising revenue was only marginally ahead at £56.75m (£55.34m) but contributions from the sale of programmes and facility hire rose sharply.

Operating costs, however, increased by 23 per cent to £61.93m as spending on new programmes was substantially higher at £26.73m (£16.21m).

Staff costs remained virtually unchanged and Tyne Tees has introduced a pay freeze in the current year in an attempt to keep costs down.

This has, however, resulted in a dispute with the BETA trade union, which accounts for 180 of the company's 600 employees.

The company said the dispute would not threaten the transmission of programmes as BETA's staff worked in non-essential jobs and the pay deal had been accepted by the other unions. But BETA contradicted both claims.

Earnings per share fell 11 per cent to 44.09p (49.56p). An extraordinary profit of £3m arising from the sale of its interest in Independent Television Publications enabled Tyne Tees to recommend a final dividend of 13p increasing the total pay-out to 19p (17.25p).

● COMMENT

There is not a lot that medium-sized television contractors can do to mitigate the effects of the straitened advertising market but Tyne Tees is nevertheless putting its best footage forward. The company is aiming to move away from its dependence on advertising revenue: turnover from hiring out facilities is expected to grow from £1.2m to £5m in the current year; sales of programmes are likely to increase both in the UK and overseas; and costs are continuing to be squeezed, albeit at the expense of a niggling union dispute. Several analysts, however, say the company's outlook on the state of the advertising market is more rosy than their own and Tyne Tees's share price performance in the coming months is more likely to reflect the cautious interpretation. Pre-tax profits for the year will probably remain in the £7m to £8m range putting the company's shares on a prospective multiple of about 6.5. Shares in Tyne Tees are unlikely to move ahead much until the state of the advertising market and the future shape of broadcasting become clearer, but at the current level of 290p there is little downside.

When no news would be bad news for the kitten

James Gatward talks to Raymond Snoddy in Los Angeles of his optimism over the future of MTM

FOR MONTHS newspapers have been bad news for Mr James Gatward, chief executive of TVS Entertainment.

Headlines about his company have almost all concentrated on unexpected losses at MTM, its American production subsidiary, the dive in the TVS share price that resulted, and doubts over whether the ITV operator for the south of England could retain its franchise next time round.

As he stands in the middle of the elaborate newsroom of the Washington Capital, Mr Gatward is confident that, for a change, a newspaper story will mean good news for MTM, the $320m acquisition that lost $20m, including financing costs, in its first year of TVS ownership.

The $400,000 "newsroom" of the fictional Washington Capital has been created in the MTM studios near Hollywood for Capital News, a 13-part newspaper drama series which opened on the ABC network on April 9.

Apart from its sale to ABC, the $1.3m-per-hour drama on life on a daily newspaper – which bears a striking resemblance to the Washington Post – has already raised $250,000 an episode from foreign sales to countries such as Italy, West Germany and the Netherlands. BBC 1 will screen it this autumn.

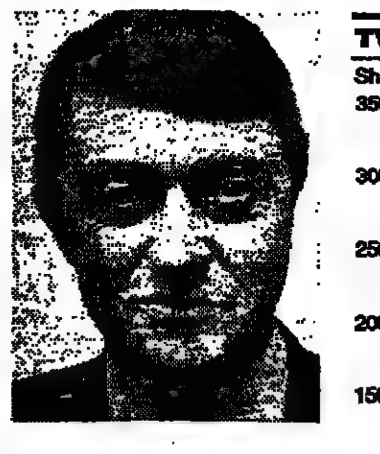
It is also one of the programmes on which MTM is building its hopes for recovery.

For the first time in its history, MTM, whose programmes have included Lou Grant, Hill Street Blues and St Elsewhere, has four series on US networks. Apart from Capital News on ABC, there are two shows on CBS – Newhart, a comedy in its eighth year, and City, a series starring Valerie Harper about life running a city bureaucracy – and on NBC there is FM, a drama set in a radio station.

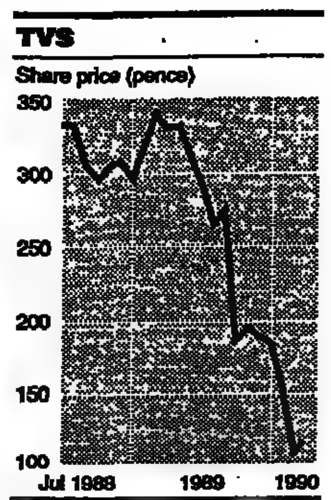
Mr Peter Grad, president of MTM television, emphasises: "This represents the most activity MTM has had in years and the most diversity that MTM has ever had."

The presentation at the MTM HQ, where once Max Sennett made silent pictures, Mr Gatward leads the fightback. "Events augur well for what is not yet expected in the City [of London] in certain circles and that is recovery," he insists.

"The turnaround has been achieved and, although it will require the end of the year to show the extent of that turnaround, I'm confident it will be there in spades," he adds.



James Gatward: the turnround will be there in spades



Since last September when TVS first announced that bad MTM results were on the way, there has been a frantic burst of activity in Los Angeles for two weeks a month, personally supervised by Mr Gatward.

MTM has moved to reduce its dependence on network comedies and dramas and on the sale of its former network shows for reruns on independent TV stations.

It was the sudden collapse of the secondary syndication market, as the rerun market is called, that got MTM into trouble. It came at the same time that a preference was growing for half-hour programmes rather than the one-hour shows MTM specialised in.

MTM believes that the secondary syndication market has stabilised; there are new buyers for programmes; and that "there is slow but steady growth in demand for hour-long programmes". It is adding new programmes to sell directly to the independents – first-run syndication – as well as made-for-TV movies.

MTM has persuaded Graham Kerr, "The Galloping Gourmet", to gallop through the kitchen again, this time with recipes for healthy eating. The series, which begins broadcasting in September, has already been sold to 43 US TV stations.

MTM also announced this week that it plans to revive one of its old shows by making 90 new episodes of a situation comedy called WKRP in Cincinnati for first-run syndication. It is not yet clear however whether the original writers and actors will be willing to revisit their past.

The film projects include a co-production on the life of actress Vivien Leigh and a $35m series inspired by the signs of the Zodiac.

But in most cases, TVS, which earlier this year announced pre-tax profits of £13.7m (£26.1m) for the year to October 31, will only proceed if the new projects are fully financed in advance.

The suggestion is that with a bit of luck MTM might make a modest profit this year and a significant contribution to the group in 1991. Mr Gatward even says he might not after all have to sell a minority stake in MTM to raise finance [in the upcoming franchise awards, the contenders will have to prove they have the money to bid].

Despite Mr Gatward's optimism, it is too early to hang the recovery sign outside MTM.

The Newhart show ends this year after failure to agree terms for a ninth year. Ironically a new Newhart show will be made for CBS in a year or two by a new production company being set up by Mr Arthur Price, the former president of MTM who left after a dispute with Mr Gatward.

It will be May before the networks decide whether any of the other three MTM shows which all have 13-week runs will return for the much longer seasons needed to earn money in syndication.

In the ruthless world of US TV, only between 15 and 20 per cent of series survive after their first outing and already there is industry scepticism on whether City will make it.

Mr Gatward is hoping that the phones will start ringing and the reporters begin chasing stories again on Capital News' deserted set, which is currently mothballed until the networks' decision over a new series. A yes would be good news.

Linread rises 17% to £3.3m

By Richard Tomkins, Midlands Correspondent

STRONG DEMAND from the aerospace sector took pre-tax profits at Linread, the Midlands-based manufacturer of car and aircraft bolts, ahead by 17 per cent from £2.84m to £3.32m in 1989.

Turnover rose by 5 per cent to £39.46m (£37.41m) and earnings per share were 18 per cent ahead at 17.87p (15.17p).

A final dividend of 3.9p is recommended, making 5.7p (4.75p).

All divisions made profits but the best performers were Aircraft Products at Redditch and North Bridge Fasteners.

On the automotive side, the performance at Commercial Products continued to fall short of expectations and North Bridge Engineering suffered a fall in profits because of cutbacks in US truck building.

Mr Mike Hughes, chief executive, said Linread faced a tough year because UK automotive building was well down and the aerospace side was suffering the consequences of the 17-week strike at British Aerospace.

On a positive note, he noted that about half Linread's output was exported directly or indirectly, so the effects of any UK recession on the group would be limited.

In the longer term, Mr Hughes pointed to the continuing buoyancy of the civil aircraft building programme and the "enormous" investment taking place in the UK automotive industry. This investment was not just by the Japanese manufacturers, but also by Ford and General Motors.

Refuge marginally lower

By Patrick Cockburn

PRE-TAX profits at Refuge, the life insurance company, were down marginally last year at £14.21m (£14.85m) but the chief point of interest continues to be the future of the 10 per cent share in the company held by Athena, the French life insurer.

Mr Tom Booth, chairman, said yesterday: "I don't think they would attempt to bid for the whole. At the moment they seem to have stuck at 10 per cent." He said there had been an exchange of visits with Athena to look at co-operation in information technology.

Athena also has tax advantages in holding 10 per cent of Refuge and the immediate threat of a bid, which lifted the share price last year, has diminished.

The final dividend is 17p (14.5p) making a 15.5 per cent increase for the year to 24.25p (21p). Earnings per share were 25.5p (27.04p).

The life side of the business did well with net premium income up by 27.5 per cent from £138m to £176m. This included £16m related to personal pension rebates received during the year from the Department of Social Security.

Mr Booth said the main feature of the results was the growth in the underlying life side of the business. As with other life insurers this has been concentrated on new pensions, mostly unit linked, which now make up 45 per cent to 50 per cent of the company's life business.

The downside of the 1989 results stemmed from the collapse in the housing market, which hit Refuge's 33 estate agents in London and Essex particularly badly.

Nevertheless, housing sales so far this year were up and a conversion rate of 34 per cent of house purchasers going on to buy endowment mortgages promises well for the future.

Exceptionals reverse Acorn's profits decline

By Alan Cane

AN EXCEPTIONAL payment of £1.2m from Olivetti, its major shareholder, turned a 20 per cent decline in operating profits at Acorn Computer Group in 1988 into a 53 per cent increase last year.

The payment was made to secure an option on sales and marketing rights to a still unidentified product which Acorn and Olivetti Systems and Networks (OSN) have been developing jointly.

Acorn's share in the development is now completed. Group sales in 1989 were £44.9m, compared with £39.2m before, an increase of 15 per cent. Operating profit before tax and the exceptional payment from Olivetti was £1.32m (£1.64m). Earnings per share were 3.8p (1.7p).

Mr Sam Wauchope, managing director of Acorn Computers, attributed the decline in profitability to pressure on margins, the costs of launching new products and expenses associated with the joint development with Olivetti.

He said the company had made steady progress during the year, and had achieved good market acceptance for its new Archimedes high powered workstation.

Some 85 per cent of UK schools use Acorn computers and the BBC A3000 computer was finding acceptance in the home, Mr Wauchope said.

He takes over as group managing director in April following Mr Harvey Coleman's promotion to president of OSN Canada.

Ferranti sells laser activity to management

By Michael Skapinker

FERRANTI International has sold its laser products group to its management for £4m. The Dundee-based company will be known as Laser Ecosse.

The new company will be headed by Mr Gordon Freeman, previously manager of the laser group. Sir Donald Macullum, a Ferranti main board director until 1987, will be chairman.

Mr Freeman said that the laser group, which employs 75 people, had not been profitable for several years.

Last year's sales were hit by the uncertainty surrounding Ferranti, which was the victim of a £215m alleged fraud.

The laser group had also been affected by industrial action at Ferranti in Dundee.

Mr Freeman said he was confident, however, that the company would be profitable this year. Sales would be about £5m, he said.

The company exports about 75 per cent of its laser products, which are used in the packaging, automotive, aerospace, white goods and chemical industries.

Funding for the buy-out was provided by Charterhouse Development Capital and the Charterhouse Venture Fund.

$8.45m US expansion for Simon

By Andrew Hill

Simon Engineering, which last week asked shareholders for £46.4m through a rights issue, is using up to $8.95m (£5.53m) of the cash to buy an environmental engineering consultancy service in the US.

Simon has bought Engineering Enterprises (EEI) and associated partnership interests for $8.45m cash. A further $500,000 has been deferred for up to 18 months.

EEI, which is based in Oklahoma, designs groundwater supply and effluent treatment projects and also advises the US's powerful environmental body, the Environmental Protection Agency, on regulations for the disposal of liquid waste by underground injection.

The company will be renamed Simon-EEI and become part of the UK group's industrial services division.

IN BRIEF

ASSOCIATED PAPER has sold API Hydraulics for £500,000 cash. Purchaser is a subsidiary of Econosto of Rotterdam.

CENTURY OILS Group has completed the purchase of Comptoirs Francais D'Importation et de Transformation Reunis. The maximum payment of £4.2m cash consists of an initial £2m with further payments to be determined by arbitration after consideration of claims under warranties.

CITYVISION: Of the 21.67m ordinary shares offered by way of rights, 1.4m have been taken up. The remaining 20.26m are to be sold in the market.

GIEVES GROUP is to acquire Valux Manzoni, whose sole asset is the lease of a retail store in the Via Manzoni, Milan. Consideration is L1.05bn (£500,000) over three instalments.

INTERNATIONAL COMMUNICATION & Data: The recent rights issue was taken up as to 8.91m ordinary (79 per cent).

MAINMET HOLDINGS: The recommended offer from ISS has been declared unconditional in all respects. ISS now owns 4.87m ordinary shares (77.8 per cent). The offer will remain open for acceptance until further notice.

MCLAUGHLIN AND Harvey has paid £500,000 for JWK Engineering, a fabricated steel manufacturer.

MANAGEMENT: The Growing Business

For SAMAC, a Wembley, west London-based steel trading company, the 1980s were a period of rapid growth. The business expanded into steel stockholding and by 1988 the company was employing 200 people and making sales of about £70m.

Pleased though they were with this expansion, Martin Verden, the chairman, and his three-strong team of executive directors, were also becoming aware that it was starting to impose strains on the business. "We realised we didn't have the experience available in a larger company and that we could do with some help from outside," he says.

With the help of Pro Ned,* an organisation which promotes the use of non-executive directors, Verden brought in William Shaw, who had recently stepped down as finance director of BAA (the former British Airports Authority), to help in a non-executive role.

At Shaw's prompting, SAMAC has imposed a tighter structure on its operations. A financial director has been appointed; the business has been arranged into separate profit centres; tougher financial controls have been applied; and the company has changed to a larger firm of auditors.

"William's main job has been to create a financial structure while at the same time keeping the company's entrepreneurial flair," says Verden. "He is very much one of us but we can bounce ideas off him and he shows us the hurdles we have to jump."

In the two years since Shaw began providing advice, SAMAC has continued to expand – it now has 300 employees and turnover of £150m – and Verden now *plans to take on a second non-executive director*. This time he wants someone with an engineering background to help the company make the move into doing more processing of the steel it supplies.

The days when companies appointed non-executive directors for their titles and the glitter they gave to the corporate letterhead may not be completely dead. But a new realism entered into the choice of non-executives in the 1980s and they are now expected to deliver real value for money. This trend was encouraged by legislation which has made it less easy for non-executives to avoid their responsibilities if anything goes wrong.

Nor are non-executive directors the prerogative solely of

Non-executive directors

Value for money from an outsider's view

By Charles Batchelor

the larger, publicly-quoted company. Small companies, with a narrower experience of commercial life and more limited management resources, have begun to appreciate the value of non-executive advice.

"Ten years ago small companies would resent an outsider being involved in the business," notes David Thorp, in charge of start-up companies at 3i, the venture capital group. "Now the reverse is true."

Pro Ned estimates that British companies have *7,000-8,000* non-executive directors serving on their boards. But while small and large companies have been active in recruiting non-executives, medium-sized companies with turnover in the £100m-£200m range still make relatively little use of their services.

And, despite the progress that has been made, too many firms are still content to bring the company solicitor or banker on to the board or "promote" retiring executive directors to non-executive jobs. Such people are unlikely to be sufficiently independent of the company to provide really valuable advice, says Colin St Johnston, director of Pro Ned.

It has been issues like this which have prompted moves in recent years to introduce a greater degree of professionalism. Pro Ned was set up in 1982 and currently places about 80 *non-executive directors* a year while the Institute of Directors has a board appointments division which matches 40 to 50 non-executive directors each year with suitable companies. In addition, for its own internal use, 3i has established its Independent Directors Programme, a register of 400 names.

The growth of the venture capital industry has been one of the reasons for the increased awareness among small firms of the value of non-executive directors. Venture capitalists usually insist on appointing a director to the boards of their investee companies to oversee their investments.

Fast growth and the prospect of a stock market listing are also factors. Kennedy & Donkin, a Godalming, Surrey-based firm of consulting engineers, added a non-executive director to its board shortly after it switched from being a partnership to corporate status.

"I'VE BEEN ON MORE HEADED NOTEPAPER THAN YOU'VE HAD HOT WORKING DINNERS."

"The company had traditionally been managed by professional engineers," says Maldwyn John, the chairman. "We wanted somebody to bring a sense of the reality of the business world." The director John brought in insisted on tighter financial controls and advised on a salary scheme which provided additional incentives to key individuals.

One of the most important roles which the non-executive director fulfils in the smaller company is to make the executive team aware of the commercial realities outside the company. "Small companies can be more introverted than large ones," says Pro Ned's St Johnston. "The company which has been family-dominated needs an outsider who can tell them how other companies work," says Anthony Luke, director of the IoD's board appointments section.

Unlike the consultant, who will only have a short-term contract with the company, and the executive director, who will be absorbed into the company's prevailing culture, the non-executive director maintains a long-term, independent relationship with the company.

The non-executive can also help executive directors lift their heads above the day-to-day detail of running the business. "Companies can get bogged down by detailed financial information and forget what is important – the cash flow statement or the balance sheet," says St Johnston.

Non-executives also play a useful role by acting as "honest broker" in matters such as the setting of executive directors' salaries or in arranging for the removal of executive directors who are not performing satisfactorily. "I can get away with asking someone to step down because they know I have no axe to grind," comments one seasoned non-executive. "The man knows I don't want his job or his share options."

In the smaller company the non-executive director is called on to provide a mixture of the broader view and advice on the day-to-day detail of running the business. "The small firm doesn't have the management resources of the large company so the non-executive director has to be much more hands-on," says *Lyn Davies*, a former chairman of Royal Worcester Spode and now non-executive director with half a dozen small firms.

The non-executive director, who will normally have board experience of a large company, can bring to the small firm his experience of dealing with business problems which it may be confronting for the first time. "The acid test is: 'Has the person had ultimate profit responsibility?' because that leaves a mark," says Anthony Whalley, a senior executive of Charterhouse Development Capital and a non-executive director of five companies.

Some non-executives make a full-time career of helping companies; others add one or two non-executive posts to a nearly full-time executive directorship.

The non-executive director would typically expect to spend between 16 and 22 days a year with the company, says the IoD's Anthony Luke. This would probably comprise 12 monthly board meetings; several *days visiting customers*, reading company papers and attending conferences; and time talking to the executive directors on the phone.

The cost to the small firm of these services would probably be between £5,000 and £10,000, depending on the size of the company.

How effective the non-executive is will depend on the extent to which he gains the confidence of the executive directors – particularly if he has joined the company to represent a major shareholder. "It can take three or four months to get into a company," says *Lyn Davies*. "You don't say much for the first three months and when you do start to talk you have to come up with a corker so everyone says: 'Why didn't I think of that?'"

Anthony Whalley knows just how sensitive relations between the executive and non-executive directors can be from his own experience. As well as acting as a non-executive director for Charterhouse, he is chairman of his family's electronics distribution business. As such he deals with representatives of the institution which has an investment in the firm.

"You don't want a yuppie telling you how you should run your company and coming to instantaneous judgments on the basis of half a dozen facts," he says. "I have found it quite revealing and try to polish my own style when I go into companies as a non-executive director."

**Pro Ned, 1 Kingsway, London WC2B 6XF. Tel 01-240 8305; IoD, 116 Pall Mall, London SW1Y 5ED. Tel 01-839 1233.*

Corporate structure

Stimulating creativity

Christina Lamb on maintaining entrepreneurial spirit

There comes a moment in the life of every entrepreneur when a crucial decision must be made. What does a company do when it becomes too big for its founder to continue imbuing it with enthusiasm but still wants to retain control?

This is a particular problem for companies which rely on *vision, selling* ideas rather than a particular product. Allowing employees to learn a range of skills and seeing them as entrepreneurs as well, was a suggestion at a recent conference organised by the Economist magazine.

One entrepreneurial company to have used this approach is Imagination, a London-based design group which has managed to sustain growth and success by shifting from one model of entrepreneurial organisation driven by the vision of one man, involved in everything from project conception to sending invoices, to another where the entrepreneurial qualities of all employees are harnessed.

Imagination was set up by Gary Withers in 1978 and has witnessed a 50 per cent rise in revenue and turnover every year since 1986. Today it is involved in a wide variety of *projects from the design of* Macao airport, the launch of the Ford Fiesta and the bubbles in the campaign for the water sell-off.

As the company became more successful and expanded from 20 to 200 people, he found more and more of his time was spent in administration – leaving less time for the creativity which had made the company a success, and forcing him to install a bureaucracy separating him from his employees.

The solution to the problem was to entrepreneurialise every task in the company. Brian Sheppard, the managing director, explains: "We realised our employees had been hired precisely for the qualities that characterises entrepreneurs and we had a resource of 200 entrepreneurs in their own right." This leaves Withers free to use his creative powers.

Movement within the company is encouraged so that account clerks can become video producers, designers can do marketing, and employees spend time in each other's departments. Project teams are made up *of flexible skill* groups. Fewer than 10 of the 200 employees have had formal business training and most account executives began on the creative side.

According to Sheppard, "people sit within functional departments because they have *to sit somewhere, but* when it comes to applying resources to the task you can forget which department people theoretically come from." He gives the example of a secretary who is particularly interested in information technology, so whenever IT expertise is needed he or she will be called in as a firefighter and is a key member of a working party looking at IT strategy.

Instead of a clear organisational hierarchy, structures are configured around each assignment, teams evolving as projects develop. "Once teams are together it's a totally hands-off approach; everyone *is expected* to comment on every aspect. The thing that motivates most is not that a board director is on your back but that you're letting your colleagues down."

Sheppard sums up: "Our success is determined by and not in spite of the entrepreneurial *spirit of our employees. I think* of myself as a conductor of an orchestra using my management experience not to bring discipline and authority but to bring an understanding of what people need to give of their best."

But what does an entrepreneur employed to manage someone else's company do when his creativity is stifled by top-heavy bureaucracy and anxious shareholders? One answer is to stage a management buy-out. This enables a company to have a more flexible approach and use the entrepreneurial drive of employees rather than function in spite of it. Brian Larcombe, a director of 3i, the UK's largest venture capital company, says more and more companies are looking at "promoting entrepreneurship by corporate restructuring."

3i believes it has identified a new kind of hidden entrepreneur, "not a whizz-kid or an Arthur Daley," he says, referring to the fictional wheeler-dealer, "but a trained professional manager who wants independence . . ".

In a recent survey it found that 13 per cent of senior UK directors were actively contemplating what it calls "break-outs" – either management buy-outs or setting up their own company. Of the advantages of going it alone, 93 per cent cited job satisfaction and making money, and 83 per cent freedom from bureaucracy.

Computing Devices in Hastings is an example of a company which has managed to utilise the dynamism of its entrepreneurial manager after effecting a management buy-out. The company began life rather humbly as the five-man UK subsidiary of a Canadian company on the top floor of a house in London's east end where the water-powered lift worked only when the River Thames was high.

After its surveillance systems were adopted by the RAF, the American company, *which had in the late 1970s* taken over the Canadian parent, agreed to fund new premises in Hastings. By 1980 there were 70 employees and by 1983 revenue was up to £5.2m. But Bill Uttley-Moore, the managing director and guiding light, found his entrepreneurial spirit stifled by having to get approvals from its huge parent – which involved much time and paperwork. "The last straw came when we had the director of flagpoles over from the US complaining about the relative positioning of our US, UK and Canadian flags."

So Uttley-Moore conceived a partial management buy-out which was achieved with the help of 3i after two years, the US parent retaining a substantial minority. This enabled the company to be more adventurous and break into the US market, pushing the number of employees up to 700 and profit to £6.15m in 1989. *The average* employee age is 27 and 96 per cent have shares in the company. They work in autonomous flexible skill groups led by co-ordinating directors in which every member has an equal say and is expected to offer suggestions on all stages, not just those in which they have particular expertise. Uttley Moore says: "The most important thing is excitement."

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COUNTRY MANSION HOUSE IN SUPERB LOCATION A38 - M1 CORRIDOR DERBYSHIRE

25,000 sq ft planning for offices, nursing home, sheltered accommodation. Excellent condition, set in beautiful landscaped grounds.

Tel: 0332 880212

YOUR SPANISH CONNECTION

Experienced Spanish businessmen with substantial funds to invest is seeking a partnership or representation agreement with leading group interested in the Spanish scene. First class references and Madrid office available.

Write to: CNI, Velazquez 94 - 3D, 28006 Madrid

RACE HORSE TRAINER

requires owner for fancied Grand National runner. For Details.
Tel:056 886/253.

Entrepreneurial Graduate Chartered Accountant

38 with hands on commercial experience running own business looking for short-term or part-time position London area.

Write Box F9647, Financial Times, One Southwark Bridge, London, SE1 9HL.

FREELANCE SALESMAN

Above average active entrepreneur on joint owner well known export service Co. London based, many years experience. Valuable live contacts with leading UK Mfrs. of consumer/consumer durables/food. Interested to cooperate with a genuine organisation seeking to increase [illegible] Sales/Services.

Write Box F9648, Financial Times, One Southwark Bridge, London SE1 9HL

EX BARRISTER & VENTURE CAPITALIST

Age 27. Recently managed successful turnaround of private UK financial services Co. Now seeks management and or business development opportunity overseas. Swahili speaker with extensive knowledge of East Africa.

Stuart Wright, 27 Sloane Street, London SW1 Tel: 01-235 5961

ACCUSTRIP

Depainting & Degreasing systems.
DISTRIBUTORS REQUIRED
New Safe Effective.
Environmentally friendly. Must have contacts industrial, automotive or aviation fields.
ACCUSTRIP U.K. Ltd
Robson Way
BLACKPOOL FY3 7PP

PROPERTY PROFESSIONALS

Seek funding on shared ownership basis to capitalise on current depressed state of property market. Commercial and residential propositions.

Write Box F9667, Financial Times, One Southwark Bridge, London SE1 9HL.

SINGAPORE CALLING

Urgently required by our Singapore Offices, Master Franchise or Licensing Rights from companies in retailing or service sector.

Full information from Roy Seaman,
Franchise Development Services,
Castle House, Norwich NR2 1PJ.
Tel: 0603 620301. Fax: 0603 630174

AGENCIES AVAILABLE FOR SALE

of new manufacture of condoms for East and West European Countries. Quality and price very competitive.

Tel or Fax on 01-328 1566 (U.K.)

PATENT FOR SALE

Worldwide Patent for sale - unique car display aid. Unit now fully developed and entering U.K. marketing and sales phase. German TUV approved. Multi million pound sales potential.

Write Box F9655, Financial Times,
One Southwark Street,
London SE1 9HL

PROFITABLE U.K. MEAT AND VEGETABLE PROCESSORS

Seeks Joint Venture Partners or Major Investor to take advantage of opportunities for expansion throughout the European Community.

Write Box F9663, Financial Times, One Southwark Bridge, LONDON. SE1 9HL

INTERESTING BUSINESS PROJECT

Sought by gentleman with substantial funds and extensive management experience.

Write Box F9649, Financial Times, One Southwark Bridge, LONDON. SE1 9HL

SEEKING A PARTNER OR CONSIDERING RETIREMENT?

Businessman with exceptional talent and experience wishes to actively participate in a manufacturing/technical company. Particularly interested where present owner wishes to plan for retirement.

Write Box F9652, Financial Times, One Southwark Bridge, London SE1 9HL

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Development Capital - Acquisitions
Property Funding - Private Company Sales
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Trading Company for Sale

Well established, £2M p.a. turnover in industrial raw materials. Subsidiary in Chile and agents throughout South America. £150,000 tax losses available. Suit company wanting immediate presence in South American market.

Write Box H5854, Financial Times, One Southwark Bridge, London SE1 9HL.

BUYING OR SELLING A COMPANY? Finance for Expansion? Gerhoff Bentley 01-748-5020.

BUSINESS SERVICES

Planning a Course or Conference ?

Why not use a Business Simulation as part of your programme ?
The PC Challenge partnership specialises in designing and running simulations for management training.
Send for details to:

PC Challenge, 71a Rosendale Road, London SE21 8EZ
Tel (01) 670 9357, (01) 947 6381 Fax (01) 947 6354

OFFICE EQUIPMENT

ANTIQUE BOARDROOM TABLE

For Sale: Antique Mahogany Boardroom Table, perfect condition. one only. Size 4'x8', with two extension leaves extends to 4'x10' and 4'x13', seats from 8 to 14 people. Price £4,000 + vat. Photos on request.

Telephone 01-585 2213.

AUCTIONS

NEXT AUCTION

of life assurance policies for investment will be held on Thursday 29 March
Telephone H.E.Foster & Cranfield for catalogue
01-608 1941
Fimbra member

BUSINESSES FOR SALE

HOTEL IN SOUTH WEST LONDON

An opportunity exists to acquire the freehold of 54, Queensgate, London SW7.

- 24 letting rooms with ensuite bathrooms.
- Planning permission for additional 10 letting rooms.
- Lounge/Bar/Restaurant.
- Close to Exhibition Centres/Museums.
- Recently refurbished.

For further information contact the Receiver's agents, Mr A. Kushner of Christie & Co., London. Telephone: 01-799 2121. Fax: 01-222 0081. Ref: 20-019.

Touche Ross
55/57 High Holborn, London WC1V 6DX.
Telephone: 01-405 8799. Telex: 261296 TRCHAN G. Fax: 01-831 2628.
Authorised to carry on Investment Business by the Institute of Chartered Accountants in England and Wales.

P. S. DUNN FCA & D. A. T. WOOD FCA
Joint Administrative Receivers

LOCKTON SHOPS PLC

AUDIO, TELEVISION & VIDEO RETAILERS

Seven well situated and fully fitted shops S.E. England, Essex warehouse.
Sales currently running at about £2.75 m. pa.
Offers for group or individual units will be considered.

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SNOOKER AND LEISURE CLUBS

Leeds/Morley (1 mile from M62)
- 27 tables with 1500 members
- 2 large function rooms (capacity 750)
- Situated in 4 acres of land
- Nightclub (capacity 250)
- Permission for 15,000 sq ft office block
- Permission for 120 room hotel
- Freehold

Humberside/Brigg
- 9 tables with 500 members
- Licensed bar
- 5000 sq ft flat above club
- Freehold

Hertfordshire/Hatfield
- 2 storey 10,000 sq ft building
- Refurbished nightclub (capacity 300)
- Sub lease to pool club
- Vacant function room with bar suitable for sub lease
- Leasehold

The Joint Administrative Receivers offer for sale all or part of the assets of the Funmatic Leisure Group Limited. For further information please contact Philip Ramsbottom or Alan Benzie.

KPMG Peat Marwick Corporate Recovery
7 Tib Lane, Manchester M2 6DS. Telephone: 061 832 4221 Fax: 061 832 7265

NORTH SALMON SMOKERY LIMITED

The Joint Administrative Receivers offer for sale as a going concern the business and assets of a major salmon smokery in the North East:

- Prestigious customer base including major airlines and hotels
- fully equipped leasehold site in Peterlee (Co. Durham) incorporating smoking house and modern offices
- budgeted turnover for 1990 approximately £5m
- experienced workforce

For further details please contact
A J Katz or P Stanley
c/o Arthur Andersen & Co.,
St Pauls House,
Park Square,
Leeds LS1 2RJ.
Tel: 0532 416250
or 061 200 0297

ARTHUR ANDERSEN & CO.

Bulk Vegetable Transportation

The joint administrators, Gurpal Johal and Ron Hodkin are inviting offers for the business and assets of B.V.I.T. Limited, a company trading in Hull, North Humberside.

- Turnover approximately £1.5m
- Specialist transportation of bulk vegetables to and from the close Continent.
- Large fleet of insulated potato hoppers.

For further information please contact Ron Hodkin or Trevor Clark at Spicer & Oppenheim & Partners, Elsworth House, 94 Alfred Gelder Street, Hull HU1 2SW.
Telephone: 0482 223579 Facsimile: 0482 223280.

SPICER & OPPENHEIM & PARTNERS
A MEMBER OF SPICER & OPPENHEIM INTERNATIONAL
Spicer & Oppenheim & Partners is authorized to carry on Investment Business by the Institute of Chartered Accountants in England & Wales.

G.P. VICKERS AND COMPANY LIMITED

The Joint Administrative Receivers offer for sale as a going concern the business and assets of G.P. Vickers and Company Limited, a company engaged as textile merchants.

Features include:
- Turnover of approximately £4m per annum
- Extensive UK and European customer base
- Large stock of finished textiles
- Key supplier contacts in Europe and the Far East
- Single storey leasehold premises of approx 12,000 sq ft in Salford

For further information please contact the Joint Administrative Receiver:
Philip Ramsbottom

KPMG Peat Marwick Corporate Recovery
7 Tib Lane, Manchester M2 6DS.
Telephone: 061 832 4221. Fax: 061 832 7265.

FORMULA SPORT INTERNATIONAL LTD. (IN ADMINISTRATIVE RECEIVERSHIP)

The Joint Administrative Receivers offer for sale the business and assets of Formula Sport International Ltd. The Company markets and sells 'Inter' Sports shoes and 'Grays of Cambridge' rackets and clothing, the latter under licence.

- Established brand name and distribution network.
- 1.5 million of balanced "Inter" shoe stock available.
- New 3.5 acre freehold property near Southam in Warwickshire, with potential for redevelopment.
- Turnover 1988/89 £2.9 million
  Projected 1990 £5.0 million.

For further information please contact:
Tony Brierley or Simon Freakley
Arthur Andersen & Co.,
P.O. Box No. 55,
1 Surrey Street,
London WC2R 2NT.
Tel: 01-438 3333
Fax: 01-831 1133
Telex: 8812711

ARTHUR ANDERSEN & CO.

Sign Manufacturer

This company manufactures, fits and services display signs of all types.

- long established company
- good nationwide customer base
- new 6000 sq ft freehold
- annual turnover £800,000

For further details please contact:
Steve Edmonds,
Grant Thornton,
Elgin House,
Billing Road,
Northampton
NN1 5AU
Tel: 0604 27811
Fax: 0604 230486

Grant Thornton
The U.K. member firm of Grant Thornton International. Authorised by the Institute of Chartered Accountants in England and Wales to carry on investment business.

JOINERY MANUFACTURER, HOLYWELL, CLWYD

The Joint Administrative Receivers offer the business and assets of the above company for sale.

- £230,000 turnover
- Leasehold Premises
- Current order book
- Specialised joinery equipment

For further information please contact the Joint Administrative Receiver:
A.W. Thompson

KPMG Peat Marwick Corporate Recovery
Richmond House, 1 Rumford Place, Liverpool L3 9QY.
Tel: 051 236 5052. Fax: 051 236 1882.

Salmon Farm

One of Scotland's larger salmon farms is offered for sale as a going concern by the Receivers. Facilities in Skye include 2 Seasites capable of producing in excess of 2,000 tonnes per annum, together with a purpose-built shore based building.

Skilled workforce presently retained by the Receivers.

For further information contact:
Stuart Fraser, Receiver, Ernst & Young,
George House, 50 George Square, Glasgow G2 1RR. Tel: 041 552 3456.

Ernst & Young
Authorised by The Institute of Chartered Accountants in England and Wales to carry on investment business.

UK DISTRIBUTION OF BUILDING PRODUCTS

- Turnover 1989 approx. £7 million, 25% growth forecast for 1990.
- Profit before tax 1989 £0.75 million, 30% growth forecast in 1990.
- High quality products sourced from long standing suppliers.
- Market leader in chosen niche geographical area.
- Innovative and highly successful selling approach capable of being developed elsewhere in UK.

Potential purchasers please WRITE to Ian Smith at
Acre House, 69/76 Long Acre, London WC2E 9JW

LIVINGSTONE FISHER PLC
THE ACQUISITION AND DISPOSAL SPECIALISTS
A FIMBRA MEMBER

FOR SALE ENGINEERING COMPANY

Well-established Midlands based manufacturer of Automotive components, with substantial plant and skilled workforce.
Annual turnover for 1989 - £12m. Major U.K. and overseas accounts. Substantial forward order book, future prospects and design facility. Property opportunity also available. Principals only need apply

Please Write to Box H5970, Financial Times, One Southwark Bridge, LONDON. SE1 9HL

Trading Company for Sale

Well established, £2M p.a. turnover in industrial raw materials. Subsidiary in Chile and agents throughout South America. £150,000 tax losses available. Suit company wanting immediate presence in South American market.

Write Box H5854, Financial Times, One Southwark Bridge, London SE1 9HL.

COSTA ALMERIA

Brand new, fully furnished and equipped

FREEHOLD SPORTS COMPLEX

Club House - 11 double bedrooms each with private facilities, bar, restaurant, lounge, shop etc. Grounds of 12,600m² with two swimming pools and facilities for bowling, tennis, squash. Situated 500m from the beach and backed by mountains, adjacent to a captive luxury residential development.
Projected annual T/O in excess of £600,000
242,000,000 pesetas (c. £1,315,000)

For further details of this, and other top leisure opportunities such as sports clubs, health farms, hotels and golf courses in Spain, the Maltese Islands and France write, expressing area of interest, to, Box H5983, Financial Times, One Southwark Bridge, London SE1 9HL

HUMAN RESOURCES CONSULTANCY FOR SALE

Highly profitable limited company in management training, resources and executive recruitment. Fully computerised with "State of the Art" equipment. Prestige freehold offices. Approx 900 clients. T/O £300K includes substantial fee income. Price £500,000 including lease or £700,000 to include freehold. Location SW London.

Principals only apply with absolute discretion to Box H5972 Financial Times, One Southwark Bridge, London SE1 9HL

60 BED PURPOSE BUILT QUALITY NURSING HOME DEVELOPMENT FOR SALE

1.5 acre site in a prominent position over looking sea in a South Eastern Scottish town. All rooms are en suite the majority being singles. Detailed planning granted, well experienced architects and established contractors in place. Agreed building contract signed. Building works to be completed December 1990.

Price required £425,000 for site, including benefit of planning and agreed building contract.
Ref: RB/CH

Write Box H5963, Financial Times,
One Southwark Bridge, London SE1 9HL.

BUSINESSES FOR SALE

SWANAGE YACHT HAVEN

The Joint Administrative Receivers offer for sale this exclusive luxury waterside homes development planned in 3 phases.

- Attractive coastal site at Swanage Bay Dorset.
- Phase I completed and part sold.
- *Phase II with detailed planning permission,* construction about to commence.
- Phase III with outline planning permission, full detailed permission being applied for.
- Private beach and substantial swinging moorings.
- Restored clock tower, listed buildings and historical pier for renovation.

Further information may be obtained from the Joint Administrative Receivers *R Hocking FCCA or PR Copp FCA FCCA (ref 7/PMS).*

Stoy Hayward
A Member of Horwath International
ACCOUNTANTS · BUSINESS ADVISERS · MANAGEMENT CONSULTANTS
8 BAKER STREET, LONDON W1M 1DA
TEL 01-486 5888 FAX 01-487 3686 TELEX 267716 HORWAT.
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Fork Lift Truck Sales and Hire

REDDISH, nr. STOCKPORT

The Joint Administrative Receivers of Powerquip Limited and Powerquip Rentals Limited invite offers for the business and assets:

- Established fork lift truck sales and hire business
- Current turnover annualised at £8m
- Freehold site in Reddish, Stockport
- Highly skilled workforce of over 100

For details please contact: D. H. Slade FCA, Ernst & Young, Lowry House, 17 Marble Street, Manchester M2 3AW. Tel: 061-953 9000. Fax: 061-834 7117.

Ernst & Young

Authorised by The Institute of Chartered Accountants in England and Wales to carry on investment business.

Importer & Wholesaler of Marble & Granite

The Joint Administrative Receivers offer for sale the business and/or assets of The Lidster Group Ltd and its subsidiaries which trade as 'Beavin'.

Principal Assets include:

- 2 freehold properties: 38,800 sq ft at Worksop, Notts. and 11,600 sq ft near Swansea.
- Stone cutting and polishing equipment
- Substantial stocks of sheet and cut marble and granite

Projected turnover approximately £2m at Worksop and £0.8m at Swansea.

For further information contact R S Harding or M Lloyd, Pannell Kerr Forster & Partners, Regent House, Clinton Avenue, Nottingham, NG5 1AZ. Tel no. 0602 608171. Fax no. 0602 603665

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PANNELL KERR FORSTER & PARTNERS
INSOLVENCY PRACTITIONERS

P.J.R. Souster F.C.A. and D.M. Walker F.C.A. as Joint Administrative Receivers, offer for sale the Business and Assets of

EXPRESS MOTOR PARCEL DELIVERY SERVICE LIMITED

Haulage and Cartage Contractors based in Metropolitan London. Freehold and leasehold premises, 21 vehicles. Turnover approximately £500,000.

For further information contact the Receivers at:
BAKER TILLY, COMMONWEALTH HOUSE, 1 NEW OXFORD STREET, LONDON WC1A 1PF. Tel: 01-404 5541. Fax: 01 405 2836
CHARTERED ACCOUNTANTS
BAKER TILLY

By Order of the Joint Administrative Receivers R W Birchill Esq. F.C.A. and C J Barlow Esq. F.C.A. of Messrs Cork Gully

FOR SALE FREEHOLD COUNTRY HOUSE HOTEL

Nr. Swindon

- Established restaurant
- 10 En-suite bedrooms
- Grade II Listed Building
- 2 miles from Junction 16 of M4
- Rural setting

Contact Mark Ebo A.R.I.C.S. or Chris Price A.R.I.C.S. on Bristol (0272) 273454

EDWARD SYMMONS & PARTNERS
HOTEL DEPARTMENT

DOUBLE GLAZING & CONSERVATORY FACTORY FOR SALE IN COVENTRY

We have a fully fitted factory capable of approx. £8M turnover, 12,000 sq.ft., very low rent, good lease.
Business available if required.
Details from: Queensway Securities, Permanent House, 17 Exchange Road, Watford WD1 7EB
Fax: 0923 31705

Hendon Squash and Leisure Club Limited

Business and assets of this North London Squash and Leisure Club for sale as a going concern.

- 9 squash courts, swimming pool, gymnasium.
- Recent extensive refurbishment.
- Approximately 1,800 members.
- North London freehold site covering over 1.5 acres.

For further details contact the joint administrative receivers:
Neil Cooper and Ipe Jacob

ROBSON RHODES
186 City Road, London EC1V 2NU
Telephone: 01-251 1644 Telex: 885734 Fax: 01-253 4629
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And you want the right buyer. With confidential briefs from hundreds of acquisitive public company chairmen who are looking to buy successful, private companies worth £500,000 to £25 million, we ought to be able to help. So if you're thinking of selling your business, contact our Managing Director to arrange a confidential discussion.

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The first name in merger broking.

Chesham House, 2 Bentinck Street, London W1M 6JX.
Telephone: 01-935 2748
FIMBRA

Near Preston, Lancashire close to M6
Conference & Tourist Hotel. Banqueting & Nightclub
3 star 151 ensuite bedroom Hotel with 2 restaurants, 9 conference and banqueting suites, leisure centre, pub and shop on excellent site.
Projected T/O Y.E. Sept. 1990 £4m
FREEHOLD FOR SALE
Contact Peter Sandes

Yorkshire City
Modern Commercial Hotel
Bordering new light industrial area. Close major motorways.
43 ensuite bedrooms, bars, conference & leisure facilities.
Projected T/O Y.E. March 1990 £1.12 m.
Profits circa £350,000.
Freehold offers in region of £2.5m
Contact Peter Sandes

On the instructions of John Soden
Price Waterhouse administrative receiver of Turpin Limited
A very well located Tourist Hotel
The Edwardian Hotel
Harrington Gardens, London SW7
78 ensuite bedrooms, 2 bars, restaurant
FOR SALE LEASEHOLD
Contact Matthew Balfour

Weatherall Green & Smith 01-405 6944

Sarum Glaziers Limited

(In Receivership)

The assets of the above company are available for sale as a result of receivership. These include:

- Valuable two acre freehold property in Salisbury, with a modern industrial unit of approximately 28,000 square feet together with offices of approximately 5,000 square feet.
- Specialist glass toughening, cleaning and cutting plant and machinery including an IPE Glass Tempering unit and two WMS Glass Washing Machines.
- *The benefit of 32 glazing contracts with an approximate outstanding value of £145,000.*
- Specialist stocks of glass and window framing materials.

For further information please contact:
PS Padmore, Price Waterhouse, The Quay, 30 Channel Way, Ocean Village, Southampton S01 1XF.
Telephone: 0703 330077. Telex: 477260.
Fax: 0703 223473.

Price Waterhouse

WE SELL COMPANIES.

Whatever your business, we should like to hear from principals, whether buying or selling. All types of business sought, regardless of industry, size or location. The strictest confidence is maintained.

KENT - COMM BLDG CONTRACTOR - Estab Co. Regular ords from PLC's. F/Hold site. T.O. £750K. Good NP. Price £400K +/- net assets (Ref ZC246812Z)
NORTH - DESIGN AND BUILDING CONTRACTORS - Proj T.O. £15M+ Majority contracts London/H.Counties. Estab 58 years. F/Hold £1M +/- current net assets (REF ZCB)
N. HUMBERSIDE - CARAVAN RENTAL/SALES - 40 acre site, Lic for 400 pitches. Night club/bar/amusements/fish & chip T.O £247K GP £116K. £1.5M (Ref ZW18455YK)
LONDON - ICE MAKING COMPANY - Well estab Co producing good NP c.£39K current financial year - excel value £125K (Ref ZFF24131)
SYNTHETIC OIL BASED PRODUCT - With estab applications for automotive eng. food manu & animal husbandary & cosmetics. Purchaser sought to further develop range. (Ref ZNG24132)
LINCS - BUS/COACH TOUR OPERATION - 3 depots Local/International routes. T.O £701k plus. L/Hold Price £625,000 including 32 Vehicle fleet (Ref ZQ15868U)
OFFICE CLEANING CONTRACTOR - Unique opportunity - One of the few remaining Franchise territories with leading UK Contractor. Very high returns for modest investment. Host of "Blue Chip" clients. Admin rather than manual (Ref AM7001)

Write to the General Manager
Everett Masson & Furby Corporate
15 Walsworth Road
Hitchin SG4 9SP
Tel 0462 422499 Fax 0462 420050
EVERETT MASSON FURBY

COMMERCIAL PREMISES, MAINTENANCE REPAIR AND REFURBISHMENT COMPANY

dealing mainly with PLCs, County Councils, Banks, Local Authorities etc. Rising profit trend, established 11 years. Turnover £750K. Net profit £200K+. Price £750k including freehold premises. Hants, south coast. Directors retiring due to ill health.
Write Box H5979, Financial Times, One Southwark Bridge, London SE1 9HL.

NEVOLE LIMITED

(In Receivership)

The Administrative Receiver offers for sale assets of the above company situated in Golders Green, London NW11.

Main assets consist of:

- Freehold property presently used as car showrooms and workshops at the rear together with two floors of ancillary office area presently unoccupied. The premises are situated on main Golders Green Road close to Brent Cross and North Circular Road. Total area is approximately 28000 sq feet. Suitable for other trades or development subject to planning consent.

For further information please contact the Administrative Receiver.

Mr S K Singla FCA
SINGLA & COMPANY
49 Queen Victoria Street
London EC4N 4SA
Phone 01-236 2184 Fax 01-236 4944

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Corporate Finance · Corporate Recovery · Taxation · Banking · Investigations
Investment Management · Pensions & Life Assurance · Accounting · Auditing

FOR SALE HOUSEWARES DISTRIBUTION COMPANY

- Turnover c£2.5m p.a.
- Well established customer base.
- Profitable since incorporation.
- Based in South East England.
- Freehold premises and warehouse.
- One retail outlet.

For details, write to Jeff Keating or John Hardcastle at the offices of Smith & Williamson, No.1 Riding House Street, London W1A 3AS. Telephone: 01-637 5377. Fax: 01-323 2714.

Smith & Williamson, Chartered Accountants Authorised by the Institute of Chartered Accountants in England and Wales to carry on investment business

Smith & Williamson Securities Authorised institution under Banking Act 1987. Member of IMRO. Member of the British Merchant Banking and Securities Houses Association

By Order of the Joint Administrative Receivers R. Robinson F.C.A. and I. Clark F.I.P.A. of Kidsons & Partners
Re: Penn Point Systems Ltd

COMPUTER HARDWARE AND SOFTWARE SYSTEMS BUSINESS

Own recently developed Leisure Management System together with wide range of office systems packages. Consultancy support and training facilities. Large number of major national companies and public authority clients. I.C.L. approved trader. Freehold property.
Sales about £1.6m p.a.
Business & Assets for Sale
For details apply to Joint Administrative Receivers or Agents:

KIDSONS
Devonshire House, 36 George Street, Manchester M1 4HA
Tel: 061 236 7733

EDWARD SYMMONS & PARTNERS
National House, 64 Bridge Street, Manchester M3 3BN
Tel: 061 832 8494

On the Instructions of the Joint Liquidators- D.A.T. Wood Esq. of Latham Crossley & Davis and C.W. Nield Esq. of Cork Gully

THE NEW DIRECTION FOUNDATION LIMITED

(In Liquidation)

The assets of the above Company are offered for sale.

- 3 Outdoor Innervators - coaches designed as mobile centres with Climbing Wall, Obseravation Platform, Roof-top Stage, Toilets/Showers, Kitchen and Audio/Visual Equipment
- Associated Activity Equipment for Camping, Canoeing, Caving, Climbing.

DRYDEN STIRZAKER LIMITED
International Industrial Plant Valuers, Auctioneers, Property Consultants & Agents

Emerson Court, Alderley Road, Wilmslow SK9 1NX
Telephone 0625 536700 *Fax* 0625 536121

TAYLOR *Corporate*

Cheshire location small group, registered 76. Full management, turnover in excess of £700,000.
PRICE £1,640,000

Purpose built Residential Care Home registered for 45, potential to increase current registration. High profits good occupancy.
PRICE £950,000

Group S.E. England registered 258, turnover in excess £2,600,000.
Price on application.

Full details from June Willoughby, Taylor Corporate, 01 390 8130.

A member of the Business Sales Group plc

REGENT ASSOCIATES

FOR SALE

COMPUTER SUPPLIES AND CONSUMABLES COMPANY

The Company is a specialist distributor of branded consumables for information processing equipment, offering a UK-wide coverage.

The business is profitable with turnover in the current financial year approaching £8m.

For further information principals able to act quickly should contact: Regent Associates by fax on 01 332 2771.

New Product Opportunities

From our extensive range of national and international sources we have many new technologies/inventions/product import rights available for license. Telephone or write for further information.
Inventions to Industry Limited.
Portman House, George Street, Aylesbury, Bucks. HP20 2HU, England
Telephone: (0296) 84141 Facsimile: (0296) 433109 Telex: 837520

FOR SALE MODERN ELECTRONICS PRODUCTION FACILITY

Electronics facility for sale in a cost competitive area close to M4 near Bath.

Comprising:

- *Low rental property* 15,000 sq ft with room for expansion
- Professional management and staff in a good catchment area
- Significant recent investment in assembly and test equipment.
- Quality approvals to AQAP 1.

An ideal opportunity to acquire electronics capacity at a realistic price in the rapidly expanding M4 corridor.
Write Box H5977, Financial Times, One Southwark Bridge. LONDON. SE1 9HL

EEC APPROVED FOOD FACTORY FOR SALE

Situated in Northern England this 10,000 sq ft factory currently producing a range of cooked and continental meat products offers an opportunity to expand the existing business or utilise as EEC approved premises. Offers considered for freehold land and buildings and/or plant and machinery.

Write Box H5967, Financial Times, One Southwark Bridge, London, SE1 9HL

BIRMINGHAM PRINT REPRODUCTION COMPANY

This highly profitable Company is for sale and the Vendors expect to *realise a figure in excess of £750,000.*

Application, marked 'Print Company' to Burman & Co., Chartered Accountants, Burman House, 39 George Road, Edgbaston, Birmingham B15 1PL

MAJOR SOFTWARE OPPORTUNITY

- Innovative software house for sale: highly developed products using Windows and OS/2 Presentation Manager for IBM PC and PS/2 computers. Initial sales and distribution agreements in place.
- Substantial sales potential, but underfunded. Marketing expertise required to distribute products in Europe and/or USA to fulfil considerable product promise.

Please write for further information to:
Box H5976, Financial Times, One Southwark Bridge, London SE1 9HL

COMPUTER PARTS BUSINESS

Majority stake in USA quoted company trading in the USA and Europe.

The company sells high quality second-hand computer parts to end users and maintainers of OEM computer equipment. Turnover £4.5 million. Enormous potential would suit MBI team or trade buyer experienced in the computer industry.

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No 2782 of 1990

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To Mr Gary ARGEBAND of 45 Maybury court, Marylebone Street, London W1M 7PM a stockbroking account executive

TAKE NOTICE that a Bankruptcy Petition has been presented against you in this Court by American Express (Europe) Limited whose registered office is situate at P.O. Box 65 Amex House, Edward Street, Brighton, East Sussex; and the Court has ordered that by publication in the London Gazette and in the Financial Times newspaper of the presentation of the Bankruptcy Petition in this matter and the time and place fixed for hearing of the Petition shall be deemed to be good and sufficient service of the said Petition upon you on the last day after completing such publication as aforesaid.

The said Petition will be heard at this Court on the 27th day of April 1990 at 11.00 hours at Room 728, Third Floor, West Block, Royal Courts of Justice, Strand, London WC2A 2LL. IMPORTANT If you do not attend the hearing of the Petition, the Court may make a bankruptcy Order against you in your absence. The Petition can be inspected by you on application at this Court whose offices are at Room 728, Third Floor, West Block, Royal Courts of Justice, Strand, London WC2A 2LL. Dated 6th March 1990

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COMPANY NOTICES

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At the Ordinary General Meeting of Privatbanken A/S, Denmark, held on 16th March 1990, a dividend of DKK 10 per share of DKK 100 was declared for the financial year 1989.

After deduction of 30 per cent dividend tax, the dividend will be credited to the shareholders' accounts via the Danish Securities Centre. The payment will take place on 22nd March 1990.

PRIVATbanken

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Brazilian commodity agencies under sentence of death

By John Barham in Sao Paulo

PRESIDENT FERNANDO Collor de Mello's has passed sentence of death on two of the central government bureaucracy's most obdurate agencies. But he still faces a tough fight to ensure that the sentences are carried out.

As promised, the Sugar and Alcohol Institute (IAA) and the Brazilian Coffee Institute (IBC), together with a motley group of 21 other agencies, were abolished by decree on March 15. Provisional measure number 151 of the emergency policy stated simply: "The following federal pubic administrative entities will be extinguished or dissolved."

Issuing the regulations was the easy part, however. They must still be approved by Congress, where they can be entirely rewritten. And unless the measures are approved within 30 days, they will simply lapse.

If President Collor faces a tough uphill battle to win approval for the bulk of his reform measures, the battle over the IAA and IBC promises to be particularly bitter. Both agencies have successfully resisted closure for the last five years by mobilising powerful special interest groups in Congress. However, a consensus has begun to emerge in the trade that the two agencies should close, or at least, be substantially trimmed.

Just as unclear and probably far more important is the question of how Brazil's coffee and sugar policies are going to administered from now on. Mr Renato Ticoulat Filho, a coffee farmer, former IBC official and a leading figure in Brazil's coffee politics said: "We do not have the slightest information. We do not know who is going to be in charge of policy. Brazil's coffee policy is important because we are the world's largest producer and our policy establishes policy outlines for the rest of the world."

While farmers have traditionally been the IBC's strongest supporters, they have long accepted that the overblown Institute should be cut down to size. Mr Jorio Dauster, the IBC's former president, halved its staff to less than 2,000.

"We told the Government that we would like the IBC to be replaced by a council directly subordinate to the Government," said Mr Ticoulat. All members of the the coffee trade would be represented on the board, which would establish support prices, manage coffee stocks and oversee export policy.

The IBC's coffee stocks alone are put at $3bn, equivalent to just under half Brazil's total foreign reserves. Traders expect that responsibility for coffee policy will be divided among a number of existing government agencies. The foreign trade department would handle export policy, Banco do Brasil, the government-owned bank, would manage stocks and general policy would be established by a council. One trader commented, however: "I bet the farmers will do all they can to revive the IBC."

Similar doubts apply to the IAA. The Institute was responsible for planning Brazil's unwieldy sugar and alcohol policies. It is one of several government agencies responsible for the collapse in Brazil's alcohol-based alternative fuel policies. The emergency decrees merely stated that "The president will rule on the transfer of the functions of the extinct IAA to organs and entities of the federal public administration."

Mr Christopher Rohl, the Rio de Janeiro representative of Sucres et Denrées, the French commodity trading house, said: "The only thing we know is that the IAA is finished. Obviously someone is going to have to take over, but we don't know who." He pointed out that government intervention would still be necessary, despite the Collor Government's commitment to free trade.

The Government controls production of alcohol by establishing prices and production volumes. It oversees the complex subsidy mechanism by which the less efficient fuel reaches service station pumps below the price of petrol, even though it costs more to produce.

The future of the alcohol policy is of considerable interest to the world sugar market. If the alcohol policy is scaled back, as Mr Ozires Silva, the government minister responsible for energy, would like, the impact on sugar prices would be profound, as surplus cane is channeled into the sugar market.

The Government has not said how free the sugar trade will become. Under the previous government IAA authorisation was needed for every transaction and nobody knows whether that will be maintained, eased or abolished.

The uncertainty over policy has paralysed the sugar and coffee export markets. While coffee prices in London fell sharply yesterday traders in Brazil reported that the market remained at a standstill. The same applied to sugar exports.

Prices are likely to fall because farmers and traders alike will be forced to sell in order to generate cashflow. The Government has frozen liquid assets in the banking system estimated at over US$100bn in an effort to wring inflation out of the economy. However, Mr Bruno Angst, a Brazil-based coffee trader, commented that "the traders are at the sharp end [of the liquidity squeeze], they need to ship major volumes now and can't afford to wait. But farmers only need to sell whatever they need to meet current expenses. There are more buyers than sellers." Mr Angst reckons that traders have commitments to ship between 500,000 and 1m bags (60 kg each) by the end of the month.

Irrespective of the future of the two institute's, Brazil's commodity trade will be profoundly affected by the new, freer economic environment. The currency is to be allowed to float while trade restrictions are to be relaxed. The first impact of floating exchange rate could be a revaluation in the Brazilian cruzeiro and that would probably reduce wholesale smuggling of commodities. About $100m-worth of coffee is believed to have been smuggled out of the country last year. Some 9,500 tonnes of tin were also smuggled out. Producers were able to sell their goods at the black market exchange rate, which fluctuated at below half the official rate.

Although nobody is quite sure how Brazil's commodity trade is going to operate in the future, there is no doubt that things will never be quite the same again.

COFFEE PRICES in London fell sharply yesterday, reflecting the uncertainty surrounding Brazil's future coffee policy following the abolition of the IBC, the country's coffee institute, writes David Blackwell. On London Fox the May robusta contract closed at £685 a tonne, a fall of £45 on the day, after trading earlier in the day as low as £670 a tonne. The continuing retreat on the New York arabica market early yesterday after a weak close on Friday added to the downward pressure. Brazil's exporters are expected to try to overcome liquidity problems by increasing sales.

Oil prices fall after inconclusive talks

By Steven Butler

OIL PRICES fell sharply yesterday as the markets responded to the meeting of ministers from the Organisation of Petroleum Exporting Countries that concluded on Saturday evening.

Traders said the meeting offered no clear indication that current high levels of Opec production, at roughly 23.7m barrels a day would be cut. Opec's official demand projection for the second quarter puts the call on Opec crude at just 20.8m b/d.

Brent crude oil for May delivery fell by 40 cents a barrel in European trading to close at $18.22½. At the New York Mercantile Exchange May futures for West Texas Intermediate Crude were off 41 cents at $19.97 in midday trading.

Oil prices have fallen continuously since early January when they were driven up by a severe cold snap in the US. Since then, however, weather has been unseasonably warm.

Neither Kuwait nor the UAE, which are significantly exceeding their Opec production quotas, gave firm pledges at the meeting that they would cut output. Kuwait has said that it would exceed its production quota in order to prevent oil prices from rising above the Opec minimum reference price of $18 a barrel for the Opec basket of crudes.

At the meeting in Vienna ministers debated proposals to reformulate the mixture of crudes which make up the barrel. Iraq is understood to want to reweight the barrel to include more heavy, sour, or high-sulphur, crudes of the type produced by itself and Iran. These crudes have recently fallen in price relative to higher quality light, sweet crudes. A reweighting of crudes in the barrel in this manner would amount to a disguised increase in the reference price.

Kuwait has argued consistently against any increase in the oil price which could affect demand growth. However, other Opec members appear increasingly sympathetic to moves which would push up prices.

US and Soviet Union in fresh grain pact talks

By Nancy Dunne in Washington

US AND Soviet grain officials, meeting this week in Vienna, are expected to produce a pact similar to the current long-term grain agreement in time for the next superpower summit in June.

Some US farm groups had hoped to expand the agreement to encompass products other than wheat, maize and soyabeans, but that idea has apparently been abandoned. The principal change is likely to be a more flexible pact, setting a minimum purchase level aggregated over several years.

The current agreement calls on the Soviets to buy 9m tonnes of US grain each year. This breaks down into 4m tonnes of wheat, 4m tonnes or maize and the remaining 1m either wheat, maize, soyabeans or soyameal. The Soviets would like not to have to meet a minimum on years when their own output is above expectations.

Because US wheat has been generally priced above world market levels, the Agriculture Department has had to subsidise most of the wheat purchases. A new government report found US subsidies on wheat to the Soviets totaled $481m over the last 29 months.

The poll tax presents a fresh crop of problems

Treating farm workers equitably will be much more difficult than with the rates system

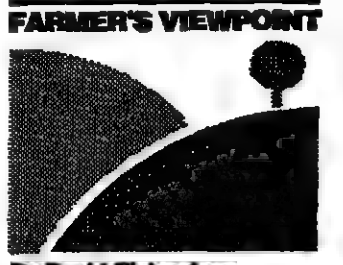
SEVERAL WEALTHY landed aristocrats who live in stately homes have announced that they intend to pay the poll tax for their workers. They doubtless feel they should set an example to lesser mortals whose employees also live in tied cottages.

Many farmers will in fact follow their lead. But it should perhaps be pointed out that a saving of a few tens of thousands of pounds on rates in place of which the titled folk may only have to pay a couple of personal charges of £300 or so apiece does make it easier to be generous to old retainers. Those of us who reside in more modest piles will have little or nothing to give away – indeed we shall almost certainly be substantially worse off.

Across most of Britain's farming areas, and certainly here in my own county of Norfolk, the custom and practice has been to allow the estimated 40 per cent of UK farm employees who live in service houses to do so rent and rates free. Where any charge is made it is usually restricted to a nominal rent measured in pence rather than pounds a week.

Rateable values have of course varied from one cottage to the next but since rates demands were seldom even seen by employees, much less paid by them, few problems of alleged inequity were caused. Most workers accepted the system as proving a valuable tax-free perk.

FARMER'S VIEWPOINT



By David Richardson

With the introduction of the community charge on April 1 all that will have to change and farmers all over the country are currently deciding how to deal with the new situation. The Agricultural Wages Board, which last week awarded farm workers a 9 per cent across-the-board increase in pay from June 3, could have made provision for extra wages to help pay the charge. Indeed the T & GWU, which represents farm workers in wage negotiations, urged the Board to do so.

But the independent members and the NFU representatives on the Board declined, preferring to allow individual employers to make up their own minds. That said, the NFU has since issued advice to farmers recommending that some form of compensation be made to workers to help them pay the new charge.

Various options are put forward: to pay an amount equivalent to previous rates plus an allowance for inflation; to pay the exact amount of the community charge in the locality; or to pay the charge plus an extra 25 per cent to cover current standard income tax (which, unless Mr Major changes it today, will in future be charged on the perk) plus a further 9 per cent to cover the related increase in National Insurance. That third option would come closest to ensuring that individual workers are no worse off under the new system.

It would not, however, cover the community charge on an employee's wife or on any other dependent relatives over 18 years of age who may also live in the cottage.

The NFU makes no recommendation for such cases and few employers, I suspect, will feel able to contemplate paying the community charge for a whole family. Indeed it could be argued that to do so would be unfair to single employees living alone.

Another imponderable is the extent to which farm workers will qualify for reductions on their community charge. It is suggested that a high proportion will be eligible which raises the question as to whether employers should first establish any rebate and then pay the difference.

Whatever the weaknesses of the rating system it was was for the owners of service cottages simple to administer. The community charge presents a minefield of complications and equality of treatment to all employees is virtually impossible.

On this farm for instance we employ people who live in three different parishes which have of course set three different levels of community charge. The variation is relatively small – between £302.46 and £316.79 per person. In calculating the compensation we offer we must therefore decide whether to treat each employee separately depending on where he lives or to take an average for all the workers on the farm on the grounds that all should be equally treated.

In reaching our decision we must also bear in mind that the law may change (even perhaps in today's Budget) and that any agreement we reach with our workers may have to be amended accordingly. It will therefore almost certainly be necessary to draw up a document for each employee which spells out that payments towards the community charge are ex gratia and will not be consolidated into the weekly wage.

There is also the question as to how to deal with employees who do not live in service houses. At present on this farm we have been in the habit of paying extra to such workers in consideration of the fact that we do not have to provide them with accommodation and to help them with their rent or mortgage. We have not, however, paid their rates.

Such employees would almost certainly argue that for the community charge they should be treated the same as those who live in a house on the farm. And they would probably be justified in that claim.

If as I suspect we shall, we finally agree to attempt to cover the community charge for each employee (but none of his relatives) plus additional indemnification against income tax and National Insurance the implication for this farm is a total cost of almost £2,000 more than we would have expected to pay if rates had continued. That represents an increase in expenditure of almost 40 per cent.

I have been at pains to avoid being political in this piece but I cannot help wondering how that portion of the rise which will go direct to the local authorities concerned can be justified. Moreover, most of the cottages are not connected to the sewer neither are they in areas where the streets are lit or indeed able to benefit from some of the other services the authorities claim to provide and for which the full charges are to be made.

Much has been made of the failure of the community charge legislation to recognise "ability to pay" although the rebate system should in theory correct any injustices. Farmers faced with paying the charges for their workers could also point to the declining trend in their incomes (in real terms they have halved over the last 10 years) and restrictions being imposed on their activities that limit their ability to respond by increasing output.

A strong case could in act be made that many farmers are unable to pay the new tax for their workers. But most believe it would be immoral not to do so. And there is no mention of the farmers' situation in the booklets on reductions in community charges published by the Department of the Environment.

Lead stocks rise at last

By Kenneth Gooding, Mining Correspondent

LEAD CONSUMERS breathed a sigh of relief yesterday when the London Metal Exchange revealed that its stocks of the metal rose last week by nearly 28 per cent, or 3,575 tonnes, to 16,475 tonnes.

Consumers had been concerned in case the recent 10-year peak in the cash price and widening premium for cash over three-month metal (backwardation) would not bring lead to the market.

Following the reported rise in stocks, the LME cash lead price closed yesterday 13 per cent down at £697.50 a tonne compared with £805 at Friday's close, while the backwardation eased from £233.50 to £136.50 a tonne.

However, traders said dips in prices yesterday attracted buyers worried that the tightness in supply of physical metal would continue for some time. LME stocks were still relatively low, they pointed out.

LME WAREHOUSE STOCKS (Change during week ended last Friday) tonnes

Aluminium	−7,725	to 77,775
Copper	−1,525	to 75,000
Lead	+3,575	to 16,475
Nickel	−924	to 3,942
Zinc	−100	to 51,425
Tin	+70	to 9,895

MARKET REPORT

CASH NICKEL soared through the $10,000-a-tonne level for the first time since the middle of last November in the wake of news that an explosion had closed Falconbridge's Sudbury plant in Ontario. However, the company said the plant would reopen soon. Three-month metal eased, leaving the premium for cash metal at $612.50 a tonne. Earlier in the day prices were lifted by European consumer and merchant buying after a 924-tonne decline in LME warehouse stocks to a 13-week low of 3,942 tonnes. Some analysts said a retracement seems likely after the recovery from a 2¼-year low of $5,800 in mid-January. LME copper prices were easier, with most traders tending to take profits on any rise. But there remains a general reluctance to sell short in view of supply tightness on Comex which is expected to become even more acute in the short term. London cocoa prices retreated. "The market got a shock at New York's low opening but industrial buying set in when we went below £700 and that pulled the price up a little in the afternoon," one trader said. New York orange juice was sharply higher by midsession on shortcovering as March came up to expiry.

Compiled from Reuter

London Markets

SPOT MARKETS

Crude oil (per barrel FOB)		+ or -
Dubai	$15.38-5.47y	-.295
Brent Blend	$18.21-8.24y	-0.40
W.T.I. (1 pm est)	$19.97-9.99y	-0.42

Oil products (NWE prompt delivery per tonne CIF)		+ or -
Premium Gasoline	$213-214	-2
Gas Oil	$159-161	-1
Heavy Fuel Oil	$82-84	+1
Naphtha	$169-171	-4
Petroleum Argus Estimates		

Other		+ or -
Gold (per troy oz)♣	$402.75	+2.25
Silver (per troy oz)♣	513c	
Platinum (per troy oz)	$503.50	-0.85
Palladium (per troy oz)	$131.50	-0.25
Aluminium (free market)	$1645	-10
Copper (US Producer)	132¼c	+2
Lead (US Producer)	56.5c	
Nickel (free market)	465c	+20
Tin (Kuala Lumpur market)	17.04r	-0.10
Tin (New York)	294c	-4
Zinc (US Prime Western)	78½c	+4
Cattle (live weight)†	111.80p	+0.72*
Sheep (dead weight)†	224.89p	-5.61*
Pigs (live weight)†	98.10p	+1.26*
London daily sugar (raw)	$384.0w	-2.4
London daily sugar (white)	$454.0w	+0.5
Tate and Lyle export price	£354.5	
Barley (English feed)	£111.5	+5
Maize (US No. 3 yellow)	£128.50	-0.25
Wheat (US Dark Northern)	£133t	
Rubber (Apr)♥	56.50p	+0.75
Rubber (May)♥	57.25p	+0.75
Rubber (KL RSS No 1 Apr)	226.5m	
Coconut oil (Philippines)§	$375w	
Palm Oil (Malaysian)§	$295z	+5
Copra (Philippines)§	$255y	
Soyabeans (US)	£169	
Cotton "A" index	79.65c	
Wooltops (64s Super)	576p	

£ a tonne unless otherwise stated. p-pence/kg. c-cents/lb. r-ringgit/kg. x-Feb/Mar. t-Mar/Apr. v-Jan/Mar. w-Apr/May. z-Apr y-May. †Meat Commission average fatstock prices. * change from a week ago. ♥London physical market. §CIF Rotterdam. ♣ Bullion market close. m-Malaysian cents/kg.

WORLD COMMODITIES PRICES

SUGAR – London FOX ($ per tonne)

Raw	Close	Previous	High/Low
May	353.00	356.80	355.20 347.80
Aug	353.00	357.40	356.20 349.00
Oct	341.00	345.00	343.00 336.00
Dec.	333.80	334.40	331.00
Mar	313.60	314.40	314.60 311.00
May	311.00	312.40	312.80 308.80

White	Close	Previous	High/Low
May	461.5	461.0	461.0 449.0
Aug	449.0	448.5	450.0 446.0
Oct	418.5	419.5	421.0 416.0
Dec	401.5	403.5	405.5 401.0
Mar	398.5	399.0	398.1 398.5
May	396.0	397.5	395.5 394.0
Aug	395.0		395.5

Turnover: Raw 3261 (7875)lots of 50 tonnes. White 1112 (1225)
Paris- White (FFr per tonne): May 2555, Aug 2555, Oct 2410, Dec 2320, Mar 2305, May 2305

CRUDE OIL – IPE $/barrel

	Latest	Previous	High/Low
May	18.24	18.55	18.40 18.15
Jun	18.41	18.65	18.45 18.32
Jul	18.47		18.47 18.40
IPE Index	18.62	18.66	

Turnover: 8368 (5347)

GAS OIL – IPE $/tonne

	Latest	Previous	High/Low
Apr	157.75	159.75	158.25 155.25
May	153.75	156.00	154.25 151.00
Jun	153.00	154.50	[illegible] 151.50
Jul	154.50	155.00	154.00 151.75
Aug	157.00	157.75	158.00 154.00
Sep	159.50	159.50	159.50 155.50
Oct	161.25		158.50 157.75
Nov	164.00	163.25	161.00 159.75
Dec	165.00	166.00	162.25 161.25

Turnover 7004 (5088)lots of 100 tonnes

TEA

26,264 packages were catalogued including 9,000 offshore, reports the Tea Brokers' Association. Demand continued strong and general. Assams sold well at irregularly dearer rates. Bright liquoring east Africans met good competition with prices advancing by 5-15p per kilo. Coloury mediums also proved a strong feature and only the plainer descriptions from central Africa realised easier rates. Ceylons were well supported with the brightest teas often substantially dearer. In the offshore auction there was good demand at fully firm to dearer rates. Quotations: quality 220p (same), medium 140p (135p), low medium 100p (same).

COCOA – London FOX £/tonne

	Close	Previous	High/Low
Mar	697	704	705 698
May	702	718	710 695
Jul	714	722	720 710
Sep	729	747	735 724
Dec	752	770	759 749
Mar	775	790	781 770
May	790	805	799 786

Turnover: 7603 (2727) lots of 10 tonnes
ICCO indicator prices (SDRs per tonne). Daily price for Mar 20 827.83 (857.41) 10 day average for Mar 21 858.00 (859.98)

COFFEE – London FOX £/tonne

	Close	Previous	High/Low
Mar	675	716	690 665
May	685	730	702 670
Jul	684	702	675 650
Sep	672	709	685 683
Nov	684	721	698 675
Jan	696	734	707 690
Mar	715	747	721 707

Turnover: 6594 (4731) lots of 5 tonnes
ICO indicator prices (US cents per pound) for Mar 16: Comp. daily 74.80 (77.50). 15 day average 76.21 (75.98)

POTATOES – IPE £/tonne

	Close	Previous	High/Low
Apr	152.0	160.5	156.0 149.0
May	184.0	192.8	[illegible]
[illegible]	99.0	99.0	
Feb	115.0	111.0	
Apr	136.5	136.5	137.0

Turnover 629 (284) lots of 40 tonnes.

SOYABEAN MEAL – IPE £/tonne

	Close	Previous	High/Low
Jun	124.50	123.30	124.50 122.00
Aug	124.50	123.00	124.50 122.00
Oct	127.50	125.50	127.50 125.00

Turnover 35 (40) lots of 20 tonnes.

FREIGHT FUTURES – IPE $10/index point

	Close	Previous	High/Low
Mar	1590	1586	1590 1585
Apr	1586	1586	1597 1585
Jul	1336	1355	1360 1350
Oct	1460	1445	1460 1460
Jan	1467	1465	1479 1460
BFI	1594	1606	

Turnover 171 (316)

GRAINS – IPE £/tonne

Wheat	Close	Previous	High/Low
Mar	111.00	111.25	111.10 111.00
May	113.10	113.80	113.60 113.05
Jun	115.15	115.55	115.00
Jan	108.30	113.10	108.35
Mar	109.30	116.00	109.30
Jan	113.00		113.00

Barley	Close	Previous	High/Low
Mar	103.85	104.60	103.85
May	106.45	107.25	106.45 106.30
Sep	103.35	103.40	
Nov	106.95	107.15	107.00

Turnover: Wheat 132 (67), Barley 82 (16).
Turnover lots of 100 tonnes.

PIGS – IPE (Cash Settlement) p/kg

	Close	Previous	High/Low
Apr	119.0	118.8	119.0
Jun	118.0	118.8	
Aug	114.3	115.3	

Turnover 22 (49) lots of 3,250 kg

LONDON METAL EXCHANGE (Prices supplied by Amalgamated Metal Trading)

	Close	Previous	High/Low	AM Official	Kerb close	Open interest
Aluminium, 99.7% purity ($ per tonne)						Ring turnover 18,800 tonnes
Cash	1605-7	1657-9		1640-3		
3 months	1604-5	1634-5	1648/1605	1628-30	1606-8	30,889 lots
Copper, Grade A (£ per tonne)						Ring turnover 44,225 tonnes
Cash	1650-2	1658-70	1665/1652	1661-2		
3 months	1620-1	1622-4	1642/1618	1636-8	1626-7	69,347 lots
Lead (£ per tonne)						Ring turnover 14,850 tonnes
Cash	695-700	800-10	809	799-800		
3 months	560-2	571-2	585/560	571-2	566-70	11,089 lots
Nickel ($ per tonne)						Ring turnover 1,866 tonnes
Cash	10200-50	9400-500	10125/10100	10100-25		
3 months	9600-50	9100-50	9775/9500	9650-700	9600-50	7,381 lots
Tin ($ per tonne)						Ring turnover 895 tonnes
Cash	6360-5	6400-10	6560	6550-60		
3 months	6465-70	6530-40	6515/6480	6480-90	6470-80	3,295 lots
Zinc, Special High Grade ($ per tonne)						Ring turnover 13,675 tonnes
Cash	1770-5	1750-40	1780/1774	1775-80		
3 months	1621-3	1605-8	1650/1600	1622-4	1616-7	16,881 lots
Zinc ($ per tonne)						Ring turnover 475 tonnes
Cash	1710-20	1680-700	1710	1690-710		
March 30	1700-10	1660-80		1680-700		173 lots

LME Closing £/$ rate: SPOT: 1.6130 3 months: 1.5970 6 months: 1.5835 9 months: 1.5415

LONDON BULLION MARKET

Gold (fine oz)	$ price	£ equivalent
Close	402½-403	249¼-249½
Opening	401½-402	248½-249
Morning fix	401.35	248.552
Afternoon fix	402.1	248.455
Day's high	402¾-403¼	
Day's low	401-401½	

Coins	$ price	£ equivalent
Maple leaf	410½-415½	254-257
Britannia	410½-415½	254-257
US Eagle	410½-415½	254-257
Angel	411½-416½	254½-257½
Krugerrand	402-405	248½-250½
New Sov.	94½-96½	58½-60
Old Sov.	94½-96½	58½-60
Noble Plat	509.65-517.5	315-320

Silver fix	p/fine oz	US cts equiv
Spot	316.90	512.50
3 months	329.00	523.55
6 months	341.30	534.75
12 months	366.20	558.75

TRADED OPTIONS

Aluminium (99.7%)	Calls		Puts	
Strike price $ tonne	May	July	May	July
1500	120	134	14	32
1600	55	78	46	72
1700	20	39	110	131

Copper (Grade A)	Calls		Puts	
2400	181	162	40	82
2550	123	111	58	129
2650	72	73	105	188

Coffee	May	Jul	May	Jul
650	55	47	18	45
700	26	29	41	77
750	12		77	

Cocoa	May	Jul	May	Jul
650	55	77	3	13
700	21	45	19	31
750	6	25	54	61

Brent Crude	May	Jun	May	Jun
1650	22	46	82	
1800	9	24		75
1850	5	14	28	

New York

GOLD 100 troy oz.; $/troy oz.

	Close	Previous	High/Low	
Mar	400.7	399.5	0	0
Apr	401.9	400.9	404.2	401.6
May	404.7	403.7	0	0
Jun	407.4	406.4	408.9	407.2
Aug	412.8	411.8	415.0	413.2
Oct	418.2	417.2	419.5	418.0
Dec	423.6	422.6	426.2	422.4
Feb	429.1	428.1	431.5	430.0
Apr	434.2	433.3	0	0

PLATINUM 50 troy oz; $/troy oz.

	Close	Previous	High/Low	
Mar	499.8	498.3	0	0
Apr	502.1	502.1	505.6	501.6
Jul	508.3	508.3	511.5	509.0
Oct	514.1	513.6	516.7	514.5
Jan	520.5	520.2	0	0
Apr	527.1	526.9	0	0

SILVER 5,000 troy oz; cents/troy oz.

	Close	Previous	High/Low	
Mar	510.1	509.3	512.5	508.5
Apr	511.3	510.8	0	0
May	515.2	514.5	518.0	514.0
Jul	523.5	522.8	527.0	522.5
Sep	532.5	531.4	535.0	532.0
Dec	544.4	543.5	546.5	544.0
Jan	548.1	547.2	0	0
Mar	556.6	555.5	558.0	557.0
May	565.0	563.9	0	0
Jul	573.6	572.4	0	0

HIGH GRADE COPPER 25,000 lbs; cents/lbs

	Close	Previous	High/Low	
Mar	129.60	129.65	131.00	128.40
Apr	123.50	123.65	123.75	122.00
May	119.10	119.75	120.90	118.10
Jun	116.10	116.65	0	0
Jul	113.30	113.80	114.80	112.80
Aug	111.05	111.55	0	0
Sep	108.80	109.30	109.80	108.40
Oct	107.20	107.30	0	0
Nov	105.90	106.50	0	0
Dec	104.80	105.30	105.25	104.50

CRUDE OIL (Light) 42,000 US galls $/barrel

	Latest	Previous	High/Low	
Apr	19.46	20.07	19.77	19.46
May	19.67	20.38	20.06	19.64
Jun	20.16	20.58	20.28	20.15
Jul	20.26	20.65	20.46	20.30
Sep	20.38	20.66	20.56	20.38
Oct	20.49	20.63	20.55	20.36
Nov	20.50	20.61	20.52	20.36
Jan	20.50	20.57	20.50	20.20

HEATING OIL 42,000 US galls, cents/US galls

	Latest	Previous	High/Low	
Apr	5450	5445	5465	5360
May	5275	5260	5300	5150
Jul	5215	5220	5225	5135
Sep	5410	5400	5425	5350
Oct	5485	5460	5485	5435
Nov	5565	5565	5565	5520
Dec	5565	5630	5565	5590
Jan	5565	5660	5665	5625

COCOA 10 tonnes;$/tonnes

	Close	Previous	High/Low	
May	1030	1054	1040	1026
Jul	1048	1068	1054	1041
Sep	1060	1090	1067	1055
Dec	1075	1101	1089	1077
Mar	1095	1115	1102	1090
May	1113	1136	1120	1120
Jul	1130	1165	1140	1140

COFFEE "C" 37,500lbs; cents/lbs

	Close	Previous	High/Low	
Mar	87.00	89.60	89.00	86.75
May	87.73	90.40	90.25	87.30
Jul	89.86	92.46	92.00	89.15
Sep	91.80	94.15	93.75	91.25
Dec	93.80	96.16	96.25	93.50
Mar	97.00	99.50	98.75	96.40
May	98.75	101.25	101.00	98.60
Jul	102.50	103.00	103.75	103.00

SUGAR WORLD "11" 112,000 lbs; cents/lbs

	Close	Previous	High/Low	
May	15.87	16.13	15.97	15.73
Jul	15.75	15.99	15.85	15.66
Oct	15.29	15.54	15.35	15.15
Mar	14.29	14.34	14.31	14.11
May	14.11	14.13	14.12	14.04
Jul	14.00	14.08	14.00	13.95

COTTON 50,000; cents/lbs

	Close	Previous	High/Low	
May	71.61	71.70	71.68	71.26
Jul	71.95	71.95	72.00	71.70
Oct	67.24	67.10	67.29	67.00
Dec	65.75	65.67	65.90	65.60
Mar	66.59	66.60	66.65	66.50
May	66.99	66.99	66.98	66.94
Jul	67.05	67.11	67.00	67.00

ORANGE JUICE 15,000 lbs; cents/lbs

	Close	Previous	High/Low	
Mar	194.10	192.40	195.00	192.50
May	193.25	192.70	194.50	192.30
Jul	191.40	190.75	192.40	190.25
Sep	186.50	185.75	187.00	185.65
Nov	179.00	179.00	179.70	179.00
Jan	172.50	174.00	174.00	172.50
Mar	173.50	173.75	173.00	173.00
May	174.00	173.75	174.00	174.00
Jul	174.50	173.75	0	0

INDICES

REUTERS (Base: September 18 1931 = 100)

Mar 16	Mar 15	mnth ago	yr ago
1939.0	1925.2	1794.0	2002.4

DOW JONES (Base: Dec. 31 1974 = 100)

	Mar 14	Mar 13	mnth ago	yr ago
Spot	134.16	133.44	130.05	138.70
Futures	133.96	134.58	132.03	141.59

Chicago

SOYABEANS 5,000 bu min; cents/60lb bushel

	Close	Previous	High/Low	
Mar	590/0	581/6	591/0	577/0
May	600/0	593/2	603/4	589/0
Jul	614/0	603/4	615/4	601/0
Aug	617/4	610/0	620/0	605/4
Sep	616/6	609/6	618/4	606/0
Nov	624/4	616/4	626/0	611/4
Jan	634/2	627/0	636/0	622/0

SOYABEAN OIL 60,000 lbs; cents/lb

	Close	Previous	High/Low	
Mar	22.61	22.53	22.63	22.30
May	22.71	22.63	22.78	22.41
Jul	22.74	22.66	22.80	22.45
Aug	22.56	22.45	22.65	22.30
Sep	22.35	22.30	22.37	21.95
Oct	22.07	21.97	22.20	21.90
Dec	21.98	21.80	22.05	21.60
Jan	21.87	21.82	21.80	21.80

SOYABEAN MEAL 100 tons; $/ton

	Close	Previous	High/Low	
Mar	166.5	163.7	166.6	162.5
May	169.5	167.3	170.5	166.1
Jul	174.3	172.3	175.5	170.8
Aug	176.5	174.2	177.1	173.0
Sep	178.7	176.2	179.2	175.0
Oct	180.3	178.0	181.0	176.8
Dec	184.2	181.9	184.5	180.6
Jan	185.5	183.6	185.7	184.0

MAIZE 5,000 bu min; cents/56lb bushel

	Close	Previous	High/Low	
Mar	251/0	247/6	251/0	247/6
May	257/0	253/6	257/4	253/4
Jul	261/6	258/4	262/0	257/6
Sep	259/4	256/2	259/6	256/0
Dec	258/6	255/0	259/0	254/4
Mar	263/6	260/6	264/0	260/2

WHEAT 5,000 bu min; cents/60lb-bushel

	Close	Previous	High/Low	
Mar	398/4	369/4	398/6	390/4
May	358/0	354/2	359/0	354/2
Jul	343/0	339/6	343/4	339/4
Sep	349/4	346/6	350/2	347/0
Dec	362/2	359/0	362/4	359/4
Mar	369/2	366/4	369/2	368/0

LIVE CATTLE 40,000 lbs; cents/lbs

	Close	Previous	High/Low	
Apr	78.15	77.47	78.35	77.65
Jun	73.10	72.32	73.20	72.65
Aug	72.62	72.20	72.67	72.35
Oct	74.32	73.90	74.60	73.95
Dec	74.65	74.20	74.85	74.25
Feb	74.62	74.35	74.90	74.50

LIVE HOGS 30,000 lb; cents/lbs

	Close	Previous	High/Low	
Apr	53.72	53.42	54.30	53.20
Jun	57.27	57.02	57.80	56.77
Jul	56.35	56.15	56.65	55.82
Aug	53.67	53.67	54.15	53.50
Oct	48.37	48.22	48.50	48.15
Dec	48.90	48.72	48.95	48.45
Feb	48.12	48.12	48.15	48.05

PORK BELLIES 40,000 lbs; cents/lb

	Close	Previous	High/Low	
Mar	51.45	50.55	51.95	51.25
May	52.02	51.25	53.10	51.35
Jul	52.52	51.62	53.45	51.85
Aug	50.50	49.57	51.42	49.95
Feb	55.62	54.57	56.67	55.50
Mar	56.60	55.80	57.00	0

LONDON STOCK EXCHANGE

Poor curtain-raiser to Budget Day

BUDGET WEEK got off to a poor start in the London equity market yesterday with share prices giving back virtually all of Friday's gains as global uncertainties resurfaced following a weekend of significant developments on several fronts. The heavy overnight setback in Tokyo, the outcome of the East German elections and a fall in sterling all served to unsettle the UK stock market.

Trading volume was light as institutional investors and marketmakers backed away from a week studded with domestic uncertainties ranging from today's Budget Speech to an important parliamentary by-election and the latest UK trade figures, both due on Thursday. Share prices, relatively resilient at first, crumbled away later as Wall Street lost 18 points before London closed. The overnight downswing in the Toyo stock market refuelled concern among analysts in the UK market over the outlook for world interest rates.

Account Dealing Dates		
*First Dealings:		
Mar 12	Mar 26	Apr 9
Option Declarations:		
Mar 22	Apr 5	Apr 26
Last Dealings:		
Mar 23	Apr 6	Apr 27
Account Days:		
Apr 2	Apr 17	May 8

*New time dealings may take place from 9.00 am two business days earlier

The final reading on the FT-SE Index showed a fall of 25.9 points to 2,238 exactly. Seaq volume at only 320.3m shares, compared with 485.5m on Friday, indicated only too clearly the unwillingness of major investors to take significant decisions ahead of Mr John Major's Budget Speech in Parliament this afternoon.

While there is no feeling of optimism in the equity market ahead of the Budget, UK securities firms showed no signs of alarm yesterday. With the Budget "unlikely to provide positive signals for equities", share markets could well come under some pressure after the speech, according to Mr Richard Jeffrey at Hoare Govett. But any fall towards 2,150 FT-SE "should be exploited as a buying opportunity."

At Nomura Research Institute, Chris Dillow believes that Mr Major's main aim will be "to reverse sterling's recent decline," but he doubts that the Budget will be able to prevent consumer spending remaining obstinately high. Some reason for optimism is found, however, at BZW where the strategy team believes that the stock market may be underestimating the speed with which the UK Government may take steps to ease its financial policy stance.

For most of yesterday's session, share prices drifted downwards without suffering undue pressure. Attention was focused on a handful of special situation stocks. Confirmation that Tate & Lyle, the UK sugar group, has been discussing with Berisford International the possibility of making a bid did neither share price any good.

Shares in Guinness were firmer although LVMH, the French luxury products manufacturer, would make no comment on suggestions that it is poised to double its current 12 per cent stake in the UK drinks concern.

Sugar companies talking

Confirmation that Tate & Lyle was holding talks with Berisford International, which could lead to its making a recommended offer, sent both share prices lower. Analysts doubted whether Tate could overcome expected UK regulatory hurdles. Tate closed 9 down at 282p and Berisford ended 11 weaker at 134p.

"The market was disappointed at the identity of the mystery bidder for Berisford," said Mr Marcus Darville of County NatWest. Another analyst said: "There seem to be a lot of barriers in Tate's way and the market has taken the news sceptically." Berisford shares have been boosted by over 30 per cent since the announcement on March 9 that it was in talks with an unnamed company.

Mr Darville pointed to Tate's high level of gearing in the context of any bid, and there was also concern that a bid could be referred to the Monopolies and Mergers Commission. Berisford's exposure to the New York property market added to the unease.

But Mr David Lang of Henderson Crosthwaite said that a Tate bid might not be blocked by the MMC. "The concerns about monopolisation may be not be as great as is currently thought. The sugar market is European and a merger between Tate and Berisford would have to be set in that context."

M & S on late alert

A frisson of anticipation in Marks & Spencer livened up an otherwise dull stores sector late yesterday. The company announced a press conference to be held this morning, and analysts speculated on the reason behind its Budget Day timing.

Some fixed upon North America as the possible subject of a downbeat announcement. A spokesman for the company's Canadian operations said he knew of no planned changes there. The chances of top level management moves were low, added observers, because the company had revealed several board changes, including a new managing director, in January.

The shares shed 3 at one stage and closed 2½ off at 193p. Turnover at 1.9m was unexceptional for the stock but comparatively busy on such a quiet day.

The water stocks were in full retreat, unsettled by the recent spate of bad publicity over the dumping of raw sewage into the North Sea. The shares were also upset by political worries, highlighted in a recent circular issued by Salomon Brothers.

Salomon noted that the water stocks' share values had fallen by over 5 per cent, on a fully-valued basis, since February 20, compared with a near 3 per cent drop in the market. The broker said the underperformance had largely been caused by political fears in the wake of the Government's unpopularity over the poll tax, the continued malaise of high mortgage rates, uncertainty over the forthcoming Mid-Staffs by-election and also by higher bond yields in the wake of weaker sterling.

In another note on the sector Hoare Govett said over the next few years cash flow would "increasingly become the principal indicator of assessing the performance of each water company." Hoare recommends that clients increase their holdings in Yorkshire Water and Anglian "in order to reduce the risk of capital expenditure overruns," and, on grounds of capital expenditure risk, switch out of South West into Wessex. The broker adds that more generally, relative yields would be the principal determinant of share prices over the next few months.

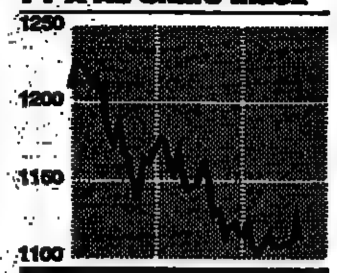
South West were the worst performing shares in the sector, dipping 11 to 158p while Southern lost 8 to 140p and Yorkshire to 169p. The Package retreated £80 to £1548.

Courtaulds Textiles, now demerged from Courtaulds, began trading at the top end of the range predicted. The shares were firm all day, closing at 254p. Dealers reported the stock to be easily the heaviest traded in the textiles sector. Courtaulds itself, now listed under industrials, registered on Seaq screens as having lost 69p. But when the demerger was taken into account this decline came out at 5½, to 316p.

Reuters closed unchanged at 1064p, the day's low, having resisted the market's early slide after a good performance in New York at the end of the previous session. Most of the relatively good volume for the stock, of 1.1m shares, was accounted for by two 500,000 share trades.

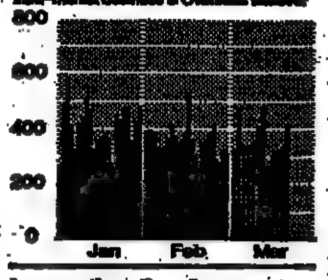
A combination of weak crude oil prices and the ever-present worry that ICI's 25 per cent stake in Enterprise Oil could be unloaded on the market at any time continued to depress the oil and gas sector.

FT-A All-Share Index



Equity Shares Traded

Turnover by volume (million)
Excluding:
Intra-market business & Overseas turnover



Crude oil prices dropped some 50 cents a barrel following the Opec meeting held in Vienna over the weekend. Specialists said that the Opec squabbling, the shadow cast by the Enterprise stake and the broad market retreat should keep oil prices under pressure.

Enterprise shares laboured under the ever-present influence of the long-rumoured placing, closing 6 off at 606p.

LASMO were the same amount off at 618p, despite more recommendations for the shares; the Kitcat & Aitken oil team, long-time bulls of LASMO, said switch out of Enterprise into LASMO. "We see significantly better potential for growth in LASMO over the next six to nine months," said Kitcat, while Mr David Steadman at Daiwa Securities said he was about to issue a strong buy note on the stock.

BP dipped 5½ to 334½p, on turnover of 4.8m shares, after confirming the cost-cutting at the group. Shell retreated 7 to 468p on 1.5m.

Calor dropped 9 to 296p after Nomura Research labelled the stock a "sell"; the prospective multiple of over 14 times earnings looks too high, a premium rating looks unwarranted and the dividend cover is now less than 1.2 times prospective earnings, according to our estimates." Nomura added "for an equivalent yield but twice the level of cover, a rising payout ratio and half the p/e rating, British Gas remains a more attractive UK gas investment. British Gas shares were 4½ off 212½p.

Royal Bank of Scotland retained the slimmest of gains, closing at 180p on thin turnover of 559,000 shares. Dealers were sceptical of stories that some sort of merger deal would be revealed this morning when Standard Chartered unveils its preliminary results. One trader said; "There was one keen buyer of Royal Bank. I don't believe the rumours." Standard Chartered lost 10 to 548p.

Insurance stocks were broadly lower but marketmakers emphasised the lack of activity with not one of the big composite insurers able to boast turnover of above 474,000 shares. BZW remained bearish of the sector, saying: "Dividend increases of 20 per cent from many of the FTSE industrial stocks reporting make the composites' increases seem paltry by comparison. This will not help the sector's relative performance."

Guinness received an early boost on renewed press coverage that likelihood that the French luxury goods group, LVMH, might raise its 12 per cent stake in the company. Guinness owns 24 per cent of LVMH and both companies have expressed their desire to make the cross-holding symmetrical.

The stock's strength was maintained as dealers and investors seemed unwilling to change positions ahead of Guinness' final results on Thursday. The shares were 10 higher at the opening of official trading, but trickled back through the day to finish a net 4 better at 664p. They were the best performer of the only three stocks in the FT-SE 100 to show a gain on the day.

Greene King continued its week-long decline in the wake of the sale of a stake in the company earlier this month by Elders. Dealers were convinced that long lines of stock in the company were on offer. The shares closed 10 down at 327p, the day's low.

An improvement in full-year figures helped Hickson International hold steady, the shares closing only a penny lower at 193p. Profits increased from £26.8m the previous year to £37.1m in 1989.

W Canning weakened, losing 6 to 214p, although 1989 profits rose 27.5 per cent to £9.0m and the chairman expected "good performance" this year with "excellent opportunities for future growth."

Turriff Construction performed well, closing 5 ahead at 281p, after the group announced preliminary figures described by dealers as "excellent". But Rugby's full-year numbers, with pre-tax profits up from £72.7m to £89.8m, failed to inspire and the shares drifted back 7 to 158p.

Aquascutum continued to advance on hopes that the restricted voting "A" shares might be enfranchised. The "A" shares rose another 8 to 134p, making an advance since the middle of last week of 36p.

Trade in AMI Healthcare, was brisk as Generale de Sante, a subsidiary of Cie Generale des Eaux (CGE), the French group which recently took an agreed 65 per cent holding, picked up another 27 per cent in the market, taking its total holding to around 92 per cent. By the market close, some 30m shares had been traded at the CGE offer price of 372p. AMI shares ended unchanged at 370p.

Beazer gave up last week's gains that followed the release of good interim results and closed 3 down at 150p. Mr Mark Stockdale at BZW said dubious results, a very weak housing market, excessive gearing and reducing interest cover make the shares "unattractive." He predicted profits for the current year of £100m, but raised his forecast for 1990/1991 from £100m to £110m.

Profit taking weakened BTR which on Friday launched a $1.64bn takeover for Massachusetts-based Norton, a manufacturer of abrasives, advanced ceramics and performance plastics. The shares eased 3 to 434p on turnover of 2.1m shares.

IMI closed 2 down at 227p as the company reported full year figures no better than market predictions. Profits improved by 15.9 per cent to £125.3m, although a chairman's cautious statement accompanied the results.

Following the release of the figures UBS Phillips & Drew upgraded 1990 profit expectations to £135m (£132m). Mr David Jacobi said "strong demand for fluid power and demand in the drinks dispensing business will more than offset flat markets in the UK."

Broking house Albert E Sharp, however, moved in the opposite direction cutting its original 1990 forecast from £137m to £133m, "to reflect caution in the UK". But Mr Tim Bennett at Sharp still believes the shares to be "a quality core holding that will increasingly be appreciated."

British Aerospace remained a dull market, the shares giving up 11 to 490p on adverse press comment.

Profit-taking weakened Rolls-Royce, the shares ending 3 easier at 183p; some 4m shares had changed hands by the close of the market.

Hawker Siddeley held up relatively well ahead of the preliminary results, due next week, and closed only 2 easier at 644p. The market expects the company to unvail restructuring plans with the release of the figures.

British Airways's good traffic figures last week combined with the current return to fashion of airline stocks on Wall Street to hold the shares relatively steady against the overall market decline. BA held on to recent strong gains with a fall of just 1½ to 207½p.

Annual profits of £9.17m from Evans Halshaw fell short of both the previous year's figure and analyst's expectations. After recent downgradings, researchers were looking for the company to produce between £10m and £10.5m and the shares ended down 12 at 218.p.

Isopad leapt 64 to 152p after news that the company's founding families have sold some 2.17m shares, including a block of 650,000, or 5.97 per cent, to Mr Brian McGowan, who becomes chairman.

A 10 per cent fall in full-year profits to £14.6m from Tyne Tees was less than analysts had expected and the shares bucked the market trend with a rise of 6 to 290p. Other TV issues declined with the market and Radio stocks continued to retreat on fears of a downturn in advertising revenue.

■ Other Market statistics, including the FT-Actuaries share index, Page 26

NEW HIGHS AND LOWS FOR 1989/90

NEW HIGHS (24).
AMERICANS (2) CANADIANS (1) CHEMICALS (2) STORES (1) ELECTRICALS (7) FOODS (1) MOTORS (1) PROPERTY (1) TRANSPORT (3) OILS (2).
NEW LOWS (166).
BREWERS (3) BUILDINGS (8) CHEMICALS (2) STORES (5) ELECTRICALS (7) ENGINEERING (7) FOODS (3) HOTELS (1) INDUSTRIALS (18) Arley, BET, Bridport-Gundry, Granada 7½pc Cv., Johnston Group, Kalamazoo, Meeks & Crane, Nobo, Optical & Medical Int., Powell Duffryn, Ropner A, Select Appointments, SmithKline Beecham A, Do. Equity Units, Unigroup, West Inds., INSURANCE (1) LEISURE (6) MOTORS (6) NEWSPAPERS (1) PAPERS (11) PROPERTY (18) SHOES (1) TEXTILES (3) TRANSPORT (2) TRUSTS (2) OILS (1) MINES (3).

FINANCIAL TIMES STOCK INDICES

[illegible]

GILT EDGED ACTIVITY

[illegible]

TRADING VOLUME IN MAJOR STOCKS

Stock	Volume 000's	Closing price	Day's change
British Land	189	331	−10
BP	4,800	334½	−5½
British Steel	4,300	141	−1½
British Telecom	3,100	272½	−2½
Burmah Oil	297	600	−8
Burton	365	163	−3
Cable & Wire.	734	530	−8
Cadburys	919	321	−9
Calor Group	115	296	−9
Coats Viyella	800	134	−1
Hillsdown	2,500	241	−5
IMI	734	227	−2
ICI	870	1120	−7
Inchcape	688	258	−2
Kingfisher	1,100	265	−3
Ladbroke	1,260	265	−6
Land Securities	435	488	−10
Laporte	74	467	−2
Legal & General	1,100	277	−1
Lloyds Abbey	747	314	−6
Lloyds Bank	1,100	277	−7
Reuters	1,100	1064	
Rolls Royce	4,000	183	−3
Ryl Bk Scotland	559	180	+1
Royal Insurance	237	455	−11
STC	946	284	−2
Saatchi	1,000	134	−2
Sainsbury	576	282	−3
Sears	845	89½	−1½
Sedgwick	560	209	−1
United Biscuits	1,000	320	−6
Wellcome	58	673	−5
Whitbread "A"	485	386	−7
Williams Hldgs.	1,400	248	−3
Willis Faber	271	349	−2
Wimpey	225	241	−2

Based on trading volume for most Alpha securities dealt through the SEAQ system yesterday until 5 pm.

LONDON SHARE SERVICE

BRITISH FUNDS

"Shorts" (Lives up to Five Years)

Five to Fifteen Years

Over Fifteen Years

Undated

Index-Linked

[illegible]

BRITISH FUNDS—Contd

INT. BANK AND O'SEAS

CORPORATION LOANS

COMMONWEALTH & AFRICAN LOANS

LOANS

Public Board and Ind.

FOREIGN BONDS & RAILS

AMERICANS

[illegible]

AMERICANS—Contd

[illegible]

CANADIANS

[illegible]

Continued on next page

APPOINTMENTS

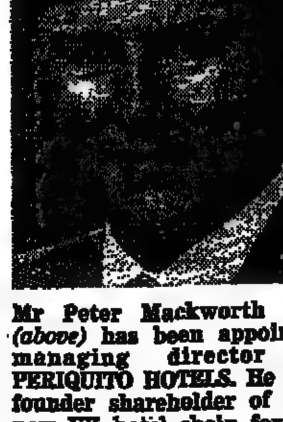
Managing director of Sony (U.K.)

■ Mr Nobu Watanabe, managing director and chief executive of Sony (U.K.), is to return to SONY CORPORATION head office in Tokyo as head of the international consumer sales group. He becomes a non-executive director of Sony (U.K.). From April 1 Mr Hadyn Abbott becomes group managing director UK sales. For the time being he continues as managing director of Sony Broadcast and Communication Products Co U.K., and Sony Magnetic Products U.K., both divisions of Sony U.K.

■ SECURITY PACIFIC HOARE GOVETT, investment banking arm of Security Pacific Corporation in Europe, has appointed Mr William Hulton as managing director of Hoare Govett Corporate Finance. He was managing director and head of Prudential-Bache Securities corporate finance activities.

■ Mr David J. Camp has been appointed property development director at STANHOPE PROPERTIES.

■ MERRILL LYNCH CAPITAL MARKETS has appointed Mr Martin E. Loat as managing director in the swaps/derivative product group handling specialised equity derivatives, based in London. He was with Bankers Trust as managing director-public equity group. Joining from Bankers Trust with him are Mr Richard Dunn and Mr Karl Heinz-Hauptmann.



Mr Peter Mackworth Gee *(above)* has been appointed managing director of PERIQUITO HOTELS. He is a founder shareholder of this new UK hotel chain formed with funding arranged by Electra Kingsway. Mr Gee was vice president of development for Holiday Inns International - Europe, Middle East, and Africa.

■ Mr F.H. Aldous has been appointed chairman of SWAN NATIONAL, part of the TSB Group. He retains his post as chief executive of the group, which includes Swan National Rentals, Swan National Leasing and Swan National Motors.

■ Mr Akhtar Dalal has joined AEI/PANDAIR in the new post of personnel director. He joins from London Weekend Television.

■ THE INVESTMENT PORTFOLIO SERVICES GROUP has promoted Mr Paul Tarran from financial controller to financial director.

■ Mr Michael J. Harris has been appointed a director of ILLINGWORTH, MORRIS.

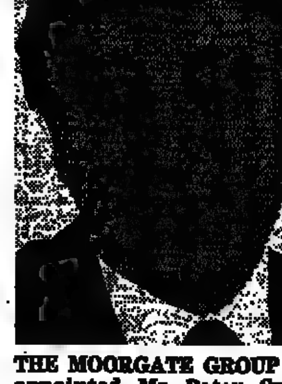
■ FKB GROUP has appointed Mr Jonathan Hagger as group finance director. He was group finance director at Bain Clarkson.

■ BAIN CLARKSON, part of the Inchcape Group, has appointed Mr Mark D. Absalom as an executive director of the marine division. He joins from Leslie & Godwin.

■ Mr Richard Gowler has been appointed managing director of DERWENT UPHOLSTERY. He was finance director. Mr Duncan Gordon, previously sales director, becomes export director and managing director of Christie-Tyler International.

■ WEMEX WATTS, a company formed to expand trade between East Germany and the UK, is to be jointly headed by Mr Keith M. Herring as managing director, and Mr Guntram Haefner as director and general manager. This is a joint venture between WMW Import/Export, an East German trading organisation, and William Watts, Nottingham, which has marketed East German machine tools for 38 years.

■ Mr Michael Buckley, Wilton Group chairman, has replaced Mr Jonathan Samuelson as chairman of COWAN DE GROOT, an industrial holding company, following Wilton's purchase of a 29.3 per cent stake. Mr Samuelson will remain an executive director of Cowan and will be responsible for corporate development.



THE MOORGATE GROUP has appointed Mr Peter Smith *(above)*, Prolific Life and Pension marketing director, to its main board in the new post of business development director.

LONDON SHARE SERVICE

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BANKS, HP & LEASING

1989/90 High	Low	Stock	Price	+ or −	Div Net	C'vr	Y'ld Gr's	P/E
*303	216	ANZ $A1	247	−1	44c	1.4	8.0	8.8
195	134	Abbey National 10p	185xd	−3	8.5	ա3.2	6.1	6.8
*282	120½	Allied Irish Ord	262	+1	[illegible]	3.3	3.1	13.5
£13½	£11½	Algemene Fl.10	£13¼	+¼	Q28%	2.0	6.7	7.4
*85	61	Anglo Irish	83	......	Q18.7%	2.7	5.3	11.3
81	57	Ansbacher (H.) 1p	73xd	−1	2.5	1.3	4.6	21.0
£72¼	£38½	Bancaire Cie Fr100	£62½	+1	[illegible]	−	2.1	−
£46½	£35½	Banco Bilbao Viz	£37	−¼	Q35.7%	2.0	3.7	13.6
£33	£25½	Banco de Santander	£26½	......	Q25%	2.4	5.9	5.8
*286	169	Bank Ireland Ir£1	262	+1	[illegible]	3.2	4.4	9.0
£19½	£17½	Bank Leumi	£19½	......	−	−	−	−
350	320	Bank Leumi (U.K.)	345	......	†13.5	−	5.2	−
125	88	Bank Scotland	117	......	†3.8	3.6	4.3	8.4
111¼	91½	Do. 9¼pc Irrd Pf	92	......	9¼%	−	13.4	−
*67	49	Bank of Wales	52	......	2.8	1.6	7.2	10.9
*588	404	Barclays £1	563xd	−6	27.4	ա3.6	6.5	5.6
31	18	Benchmark 20p	18	−1	1.63	1.0	12.0	10.3
363	285	Brown Shipley £1	313	......	†10.5	−	4.5	−
455	325	Cater Allen £1	410	......	23.5	−	7.6	−
259	149	Chancery	149	−3	†8.0	2.8	7.2	6.6
£23¾	£14½	Commerzbk DM10	£21½	......	Q18%	−	3.1	−
*£29	£22¼	C'hgn. Hdk. Kr100	£25¾	+½	Q15%	−	5.6	−
£16½	£10	Dai Ichi KBk Y50	£10½	......	†Q16%	8.8	0.3	38.0
*£314	£156¼	Deutsche Bk DM50	£296	+18¼	Q24%	−	1.5	−
£22¼	£17½	Espirito Santo	£19¾	......	Q75c	3.3	2.3	13.5
260	182	First Nat. Fin. 10p	210	−3	13.0	2.4	8.0	6.7

Hire Purchase, Leasing, etc.

BEERS, WINES & SPIRITS

BUILDING, TIMBER, ROADS

BUILDING, TIMBER, ROADS — Contd

CHEMICALS, PLASTICS

DRAPERY AND STORES

ELECTRICALS

ELECTRICALS — Contd

ENGINEERING

ENGINEERING — Contd

FOOD, GROCERIES, ETC

HOTELS AND CATERERS

INDUSTRIALS (Miscel.)

INDUSTRIALS (Miscel.) — Contd

INDUSTRIALS (Miscel.) — Contd.

INSURANCES

LEISURE

LONDON SHARE SERVICE

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MOTORS, AIRCRAFT TRADES

1989/90 High	Low	Stock	Price	+ or –	Div Net	C'vr	Y'ld Gr's	P/E
£17½	975	DAF N.V. Fl1.5	£12½	+⅛	HQ2.5	1.8	5.8	9.5
162	113	General Mtrs Units	146	–1	MQ12½%	–	5.1	–
*61½	27	♦March Group 5p	38	–2	6–	–	–	–
£219¼	£94½	Volkswagen DM50	£219¼	+10¼	Q20%	2.8	1.5	23.3
£51⅛	£33½	Volvo Kr25	£36½	+2	Q56%	3.1	3.7	9.1

Commercial Vehicles

1989/90 High	Low	Stock	Price	+ or –	Div Net	C'vr	Y'ld Gr's	P/E
*305	201	ERF (Hldgs)	206	.....	15.0	3.7	9.6	3.7
*245	156	Plaxton Grp	158	–2	8.5	♦	7.5	♦

Components

1989/90 High	Low	Stock	Price	+ or –	Div Net	C'vr	Y'ld Gr's	P/E
436	375	Abbey Panels	436	.....	3.5	10.8	1.1	11.6
290	188	Airflow Streamlines	220	.....	6.0	4.2	3.6	8.8
208	145	Bostrom 5p	175	.....	15.1	10.6	3.9	8.4
299	191	Dowty 50p	206	–1	18.0	2.3	5.2	10.8
261	164	FR Group	165	.....	15.54	3.7	4.5	8.1
*174	74	Kwik-Fit Hldgs. 10p	81	.....	2.4	2.8	4.0	12.1
*725	509	Lucas Inds. £1	613	–7	25.0	2.9	5.4	7.2
*62	12	♦Spice 5p	12	–1	♦g1.2	0.4	♦	–

Garages and Distributors

1989/90 High	Low	Stock	Price	+ or –	Div Net	C'vr	Y'ld Gr's	P/E
45	25	Alexanders 10p	25	.....	1.0	3.0	5.3	7.5
184½	104	Appleyard 10p	128	+1	7.8	♦	8.1	[illegible]

[illegible]

NEWSPAPERS, PUBLISHERS

[illegible]

PAPER, PRINTING, ADVERTISING

[illegible]

PROPERTY

[illegible]

PROPERTY—Contd

[illegible]

SHOES AND LEATHER

[illegible]

SOUTH AFRICANS

[illegible]

TEXTILES

[illegible]

TOBACCOS

[illegible]

TRANSPORT

[illegible]

TRUSTS, FINANCE, LAND

Investment Trusts

[illegible]

TRUSTS, FINANCE, LAND—Contd

[illegible]

Finance, Land, etc

[illegible]

WATER

[illegible]

For Water Package Units see Recent Issues

OIL AND GAS

[illegible]

OIL AND GAS—Contd

[illegible]

OVERSEAS TRADERS

[illegible]

PLANTATIONS

Rubbers, Palm Oil

[illegible]

Teas

[illegible]

MINES

Central Rand

[illegible]

Eastern Rand

[illegible]

Far West Rand

[illegible]

O.F.S.

[illegible]

Diamond and Platinum

[illegible]

Central African

[illegible]

Finance

[illegible]

Australians

[illegible]

Tins

[illegible]

MINES—Contd

Miscellaneous

[illegible]

THIRD MARKET

[illegible]

NOTES

[illegible]

REGIONAL & IRISH STOCKS

The following is a selection of Regional and Irish stocks, the latter being quoted in Irish currency.

[illegible]

IRISH

[illegible]

TRADITIONAL OPTIONS

3-month call rates

Industrials

[illegible]

Property

[illegible]

Oils

[illegible]

Mines

[illegible]

This service is available to every Company dealt in on Stock Exchanges throughout the United Kingdom for a fee of £1650 per annum for each security.

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AUTHORISED UNIT TRUSTS

[illegible]

PK English Trust Co Mngt Ltd

[illegible]

GUIDE TO UNIT TRUST PRICING

[illegible]

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Thornton Unit Managers Ltd (1000)F
33 Cavendish Sq., London W1M 7HF 01-493 7262
Dealing 01-493 8545

	Init Chrge	Canc Price	Bid Price	Offer Price	+ or -	Yield Gr's
American Opps	5	52.35	55.19xd	56.73	+0.75	0.30
(Accum Units)	5	53.88	54.74xd	58.58	+0.77	0.30
European Opps	5	78.24	78.47	83.49	+0.58	0.00
(Accum Units)	5	78.67	78.90	84.15	+0.58	0.00
Far Eastern Opps	5	135.08	135.45xd	144.47	-1.72	0.00
(Accum Units)	5	135.95	136.32xd	145.40	-1.72	0.00
Golden Opps	5	45.77	45.77	48.81	+0.68	0.00
(Accum Units)	5	47.08	47.08	50.21	+0.70	0.00
Intl Hi-Yield	5	59.49	59.95	63.95		4.31
(Accum Units)	5	64.85	65.35	69.70	+0.81	4.31
Shoyo Japan Tst	5	66.06	66.06	70.46	-2.19	0.00
(Accum Units)	5	66.06	66.06	70.46	-2.19	0.00
Kangaroo	5	32.31	32.31	34.46	+0.43	1.50
(Accum Units)	5	32.49	32.49	34.65	+0.44	1.50
Oriental Income	5	33.80	33.92xd	36.17	-0.15	5.17
(Accum Units)	5	38.50	38.54xd	41.10	-0.17	5.17
Pacific Technology	5	60.59	60.59xd	64.05	-0.58	0.00
(Accum Units)	5	61.09	62.09xd	64.56	-0.60	0.00
Tiger	5	153.30	153.30	163.51	-0.31	0.68
(Accum Units)	5	155.49	155.49	166.86	-0.32	0.68
UK Hi-Yield	5	43.00	43.00	45.86	-0.01	4.99
(Accum Units)	5	49.17	49.17	52.45	-0.02	4.99
UK Opps	5	54.21	56.84xd	60.78	+0.23	0.70
(Accum Units)	5	58.48	61.85xd	64.14	+0.26	0.70

Three Counties Asset Mngmt Ltd (1430)F
Cuthbert House, Tower Road, Washington NE37 2SH 091 415 3034

Balanced Portfolio	6	91.05	92.75	98.67	-0.23	4.00

Touche Remnant Unit Tst Mngt Ltd (1600)F
Mermaid Hse, 2 Puddle Dock, EC4V 3AT 01-248 1250
4 Hourly Pricing—12 Noon Historic

TR American Grth	5¼	48.34	48.34	51.56	+0.51	0
TR Eur Sp Sits Acc	5¼	44.61	44.61	47.45	+0.43	0
TR Eur Sp Sits Inc	5¼	43.74	43.74	46.53	+0.42	0
TR Far East Opps Inc	5¼	23.75	23.75	25.00	—	—
TR Far East Opps Acc	5¼	23.75	23.75	25.00	—	—
TR General Growth	5¼	73.14	73.14	77.80	-0.77	2.85
TR Global Tech	5¼	76.61	76.61	81.71	+1.55	0
TR Income Growth	5¼	84.62	85.12	90.55	-1.14	4.51
TR Income Monthly	5¼	53.22	53.22	56.61	-0.55	7.10
TR Japan Growth	5¼	85.96	85.96	91.21	-4.53	0

[illegible]

J. Rothschild Fund Managers Ltd

	Bid Price	Offer Price	+ or -	Yield Gr's
Intl Exempt	142.6	144.21	—	2.56

Stewart Ivory & Co Ltd

Saints PPP Feb 14	258.6	272.3	—	0.00

Closed to new business

Thornton Unit Managers Ltd

Managd Exempt Mar 15	101.41	107.99	—	3.83
(Accum Units)	102.03	108.66	—	3.83

Touche Remnant Unit Tst Mngt Ltd

TR Exempt European	1120	1126	—	1.00
TR Exempt Nth Amer	975	989	—	3.30
TR Exempt Pac Basin	940	959	—	0

INSURANCES

AA Friendly Society
Investment Mngt M & G Inv Mngt Ltd

AA Friendly Sy Mar 9		144.3	—	—

Abbey Life Assurance Co Ltd
80 Holdenhurst Road, Bournemouth 0202 292373

Prop. Ser. 1	301.1	317.0	—	—
Equity Ser. 1	129.3	136.2	-0.2	—
Prop. Acc. Ser 2	444.3	468.5	—	—
Equity Ser 2	250.0	157.9	-0.3	—
Selective Acc	341.4	359.4	-0.3	—
Prop. Ser. 4	362.7	381.8	-0.1	—
Equity Ser. 4	152.6	160.7	-0.2	—
Man. Ser. 4	438.8	461.9	-0.4	—
Fixed Int. Ser. 4	208.6	219.1	-0.4	—

[illegible]

OTHER UK UNIT TRUSTS

[illegible]

Continued on next page

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National Financial Management Corp PLC
72 Cambourne Rd, Aylesbury, HP19 3LJ 0296 395539

	Bid Price	Offer Price	+ or -	Yield Gross
Life Funds				
Managed Cautionary	102.8	108.3	+0.5	–
Managed Growth	141.0	148.5	+0.3	–
Managed Opportunity	144.5	152.2	—	–
NFMC Target Financial	100.4	105.7	—	–
Pension Funds				
Managed Cautionary	107.8	113.5	+0.6	–
Managed Growth	145.2	152.9	+0.4	–
Managed Opportunity	147.2	155.0	+0.2	–
NFMC Target Mngd Pen	1503.8	1583.0	–4.5	–

National Mutual Life
The Priory, Priory Pl, Hitchin, SG5 2DW 0462 422422

	Bid Price	Offer Price	+ or -	Yield Gross
Managed Fund	221.0	232.7	—	–
Managed Prospect Fund	185.5	195.3	—	–
Pens Managed	285.3	300.4	—	–
Pens UK Equity	331.8	349.3	—	–
Pens Overseas Equity	404.7	426.0	—	–
Pens Property	160.7	169.2	—	–
Pens Fixed Interest	168.5	177.4	—	–
Pens Index Linked	142.3	149.8	—	–
Pens Deposit	191.2	201.3	—	–
Barrasler & F.R.P.				
UK Equity	145.0	152.7	—	–
Overseas Equity	144.8	152.5	—	–
Fixed Interest	115.1	121.2	—	–
Property	133.7	140.8	—	–
Index Linked	129.2	136.1	—	–
Deposit	132.7	139.7	—	–
Managed	143.8	151.4	—	–
With Profits	135.9	143.1	—	–

National Provident Institution
48 Gracechurch St, London EC3P 3HH 01-623 4200

	Bid Price	Offer Price	+ or -	Yield Gross
Managed	340.4	358.4	–0.4	–
UK Equity	431.0	453.7	–2.2	–
Overseas Eq	365.6	384.9	+2.2	–
American	273.1	287.5	+4.1	–
Far East	376.4	396.3	–7.3	–
Property	220.4	232.0	–0.2	–
Fixed Int	209.5	220.6	–0.9	–
Indexed Gilt	134.5	141.6	–0.6	–
Deposit	160.9	169.4	+0.2	–
Pension Fund (Accum Units)				
Managed	459.0	483.2	–0.5	–
UK Equity	533.1	561.2	–2.7	–
Overseas Eq	588.6	619.6	+3.9	–
American	360.7	379.7	+5.1	–
Far East	620.5	653.2	–14.3	–
Property	271.3	285.6	–0.2	–

Providence Capital Life Assc. Co Ltd — Contd.

	Bid Price	Offer Price	+ or -	Yield Gross
UK Managed Initial		114.8	—	–
Property Initial		166.3	—	–
Money Initial		79.5	+0.1	–
Special Market Initial		138.3	+1.0	–
Japan Equity Initial		100.5	–2.9	–
North American Initial		84.4	+0.3	–
Pacific Initial		80.0	–0.8	–
Technology Initial		103.0	–0.6	–
Nat Resources Initial		58.4	+0.1	–
European Initial		107.0	+0.2	–
Residential Prop Init		103.7	—	–
Swiss Equities Initial		37.5	+0.5	–
Hong Kong Initial		48.2	+0.1	–
UK High Inc Eq Init		67.9	–0.4	–
Int Fixed Interest Init		48.8	+0.1	–
Int Managed Init		56.9	+0.3	–
HIP Managed Init		113.5	–0.1	–
HIP Managed II Initial		98.8	—	–
Broker Funds				
High Performance	76.0	80.1	+0.1	–
Towerhill Mngd Fd Acc	53.5	56.4	+0.9	–
YRA Executive Fd	92.6	97.6	+0.3	–
£ Global Growth Acc	130.5	137.6	—	–
£ High Income Mang Acc	111.4	117.7	—	–
IM Balanced		55.9	–0.2	–
H.F. Speculator Fd		158.3	—	–
PEP Acorn II		125.2	—	–
PEP Cautionary		88.5	+0.6	–
AAFS Int Man Fund		120.9	+0.6	–
Andrews-Green Inv Port		103.7	(z)	–
Individual Pension Funds				
UK Equity Acc	219.6	231.7	–1.5	–
UK Fixed Interest Acc	173.1	182.6	+0.9	–
Intl Equities Acc	252.8	266.7	+2.1	–
UK Managed Acc	180.8	190.7	–0.1	–
Property Acc	208.8	220.3	–0.1	–
Money Acc	136.8	144.4	+0.1	–
Special Market Acc	280.0	295.4	+3.0	–
Japan Equity Acc	203.5	214.7	–7.4	–
North American Acc	131.8	139.1	+0.5	–
Pacific Acc	196.2	207.0	–2.7	–
Technology Acc	173.3	182.9	–0.9	–
Natural Resources Acc	115.6	122.0	+0.4	–
European Acc	142.9	150.8	+0.3	–
Residential Prop Acc	114.0	120.3	—	–
Swiss Equities Acc	38.7	40.9	+0.6	–
Hong Kong Acc	50.0	52.8	+0.1	–
UK High Inc Equ Acc	75.0	79.2	–0.5	–
Int Fixed Interest Acc	52.0	54.9	+0.1	–
Int Managed Acc	60.7	64.0	+0.3	–
Group Pension Funds				
Equity Acc	816.0	861.3	+4.0	–

Royal Heritage Life Assurance Ltd — Contd.

Japan; UK Select Opps; UK Smlr Cos; Man Gtd; Gartmore Funds (Currency ...); Global Inc & Cwth; Worldwide Recovery; Japan Select Opps; European Select Opps; Pacific Growth; Intl Managed; **Perpetual Funds**: International Growth; Income; American Growth; Intl Emerging Cos; Far East Growth; European; Managed; **TSB Funds**: Income; Managed; **Broker Managed**: City Capital Bond; Birchwood; Hardwick Inv. Mngt; Sterling Cap Growth; Commodity Swift Fund; Andrews Green Inv Ptfl; Stoneleigh Inv Man Bd; Western Counties Mng; Fosters International; Richards, Longstaff; Heritage Mngd Bond; DOA Gilley Mngd Eq Fd; Gay Brewer Fd; J J Barrington Int Fd; G & T Smaller Cos Fd; Buckingham Mngd Fd; J J Barrington Mngd; Charles Stanley; Ethical Inv; Investors Income Bd — [illegible]

Royal Life Insurance Ltd
New Hall Place, Liverpool L69 3HS 051-227 3000

Royal Shield Fd; Royal Life (Unit Linked Assurances); Managed Fund; Equity Fund; Property Fund — [illegible]

[illegible]

OFFSHORE AND OVERSEAS

GUERNSEY (SIB RECOGNISED)

[illegible]

MANAGEMENT SERVICES

[illegible]

IoM (SIB RECOGNISED)

[illegible]

LUXEMBOURG (SIB RECOGNISED)

[illegible]

JERSEY (SIB RECOGNISED)

[illegible]

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	Init Chrge	Canc. Price	Bid Price	Offer Price	+ or -	Yield Gr's
Hill Samuel Investment Services Intl SA						
Marktgasse 63/65, 3001 Berne, Switzerland 229051						
Hill Samuel Global Portfolio						
Global Equity		$	9.47		—	—
Global Bond		$	9.20		—	—
Global Managed		$	9.40		—	—
Sterling Fixed Int		£	9.46		—	—
European Fixed Int		DM	8.90		—	—
UK Equity		£	9.19		—	—
UK Smaller Co's Eqty		£	9.56		—	—
Nth American Equity		$	9.50		—	—
US Smaller Co's Eqty		$	9.27		—	—
Japanese Equity		Yen	936		—	—
European Equity		DM	10.17		—	—
Pacific Basin Equity		$	9.29		—	—

	Bid Price	Offer Price	+ or -	Yield Gross
Lazard Fund Managers—Contd.				
Lazard Japan Fund	$50.01	53.51	-6.02	—
Lazard Nth Am.	$20.55	21.88	—	1.0
Lazard Sel Port £ Cap.	£13.89	14.99	—	—
Lazard Sel Port £ Inc.	£9.11	9.59	—	13.39
Lazard Sel Port $ Cap.	$13.08	14.19	—	—
Lazard Sel Port $ Inc.	$8.50	8.98	—	8.58
Lazard U.K.	£1.313	1.380	+0.003	—
M & G Island Fund				
Island	652.3	692.4	+5.8	2.79
(Accum Units)	1269.8	1346.0	+7.4	2.79

JERSEY (**)

SWITZERLAND

CANADA

GUERNSEY (**)

DUBLIN (**)

OFFSHORE INSURANCES

ISLE OF MAN (**)

LUXEMBOURG (**)

OTHER OFFSHORE FUNDS

Money Market Trust Funds

Money-Market Bank Accounts

UNIT TRUST NOTES

CURRENCIES, MONEY AND CAPITAL MARKETS

FOREIGN EXCHANGES

D-Mark up on election result

THE D-MARK strengthened on the result of Sunday's election in East Germany and the overwhelming support for parties favouring early reunification. The first move towards creating a single German state is expected to be monetary union and, according to Mr Elmar Pieroth, East Germany's designated Economics Minister, this could be achieved by June 30.

Worries about the inflationary impact of such a move were swept aside, as the potential economic power of a united Germany led to strong support for the D-Mark.

The West German currency rose to a record high against sterling and the firmest level for about 7 years in terms of the Japanese yen. The pound, suffering from political and economic worries, and the yen, depressed by low Japanese interest rates, were worst hit by the strength of the D-Mark.

The dollar also lost ground, but dealers were reluctant to push the US currency down too far ahead of today's US trade figures. A January deficit of about $9.6bn is expected, compared with $7.2bn in December.

At the close of trading in London the dollar had fallen to DM1.6830 from DM1.6945 and to FFr5.6900 from FFr5.7250, but was little changed at SFr1.5085, compared with SFr1.5080 on Friday, and rose to Y153.50 from Y152.80. According to the Bank of England the dollar's index was unchanged at 68.2.

The result of the East German election could hardly have come at a worse time for sterling. Britain's ruling Conservatives are trailing a long way behind the opposition Labour Party in the opinion polls and they face the possible loss of a safe parliamentary seat in the Mid-Staffordshire by-election on Thursday. This is also the day when UK trade figures for February will be announced against the background of recent disappointing economic data.

London's financial markets are looking for reassurance from Mr John Major, the UK Chancellor, in today's Budget speech. In the circumstances, the pound was particularly vulnerable to a surging D-Mark. In London sterling fell to a record closing low of DM2.7125 from DM2.7525. Earlier in Frankfurt the pound had been fixed at an all time low of DM2.7200.

At the London close sterling had also lost 1¼ cents to $1.6120, and had fallen to SFr2.4325 from DM2.4500 and to FFr9.1725 from FFr9.3000. The pound was unchanged however, at Y247.50 against a weak yen. Sterling's index fell 0.7 to 85.9.

Dealers reported support for the yen by the US Federal Reserve in New York and by the Bank of England in London. The UK authorities, acting as agents for the Bank of Japan, bought yen against the dollar at around Y153.60. Earlier in Tokyo the Bank of Japan intervened heavily as the dollar rose to Y153.55, the highest closing level against the yen for three-years. At the London close the D-Mark advanced to Y91.20 from Y89.85, the highest point since 1983.

EURO-CURRENCY INTEREST RATES

Mar 19	Short term	7 Days notice	One Month	Three Months	Six Months	One Year
Sterling	14¾-14½	14⅞-14⅞	15⅛-15⅛	15⅛-15⅛	15⅛-15⅛	15⅜-15⅛
US Dollar	8¼-8⅛	8⅝-8½	8⅞-8¾	8⅞-8¾	8⅞-8⅞	9-8⅞
Can. Dollar	12¾-12⅝	12⅞-12⅝	13⅛-12⅞	13⅛-12⅞	13⅛-12⅞	13⅛-12⅞
D. Guilder	8⅞-8¾	8⅞-8⅞	8⅞-8⅞	8⅞-8⅞	9-8⅞	9⅛-9⅛
Sw. Franc	8⅞-8⅝	8⅞-8⅝	8⅞-8⅝	9⅛-8⅞	9⅛-9⅛	9⅛-9⅛
Deutschmark	7⅞-7¾	7⅞-7⅞	8⅛-8	8⅞-8⅞	8⅞-8⅞	9⅛-9⅛
Fr. Franc	10¼-10⅛	10⅜-10⅛	10⅝-10⅝	10⅞-10⅝	10⅞-10⅝	11⅛-11⅛
Italian Lira	13-11	13-12	12⅞-12⅝	12⅞-12⅝	13⅛-12⅞	13⅝-13⅜
Belgian Franc	10⅜-10¼	10⅜-10¼	10⅜-10¼	10⅜-10⅜	10⅝-10½	10⅞-10⅞
Yen	7⅛-7⅛	7⅛-7⅛	7⅞-7⅞	7⅞-7⅞	7⅞-7⅞	8⅛-7⅞
D.Krone	12-11⅞	12¼-12	12⅛-12⅛	12⅜-12⅛	12⅝-12⅜	12⅞-12⅞
Asian $Sing	8⅛-8⅛	8⅜-8⅛	8⅞-8⅜	8½-8⅜	8⅞-8⅞	9-8⅞

Long term Eurodollars: two years 9¼-9⅛ per cent; three years 9⅜-9¼ per cent; four years 9⅝-9½ per cent; five years 9½-9⅜ per cent nominal. Short term rates are call for US Dollars and Japanese Yen; others, two days' notice.

£ IN NEW YORK

Mar.19	Latest	Previous Close
£ Spot	1.6245-1.6255	1.6185-1.6195
1 month	0.94-0.93pm	0.90-0.89pm
3 months	2.75-2.72pm	2.61-2.58pm
12 months	9.70-9.60pm	9.15-9.05pm

Forward premiums and discounts apply to the US dollar

STERLING INDEX

	Mar.19	Previous
8.30 am	86.0	86.7
9.00 am	86.0	86.7
10.00 am	86.0	86.6
11.00 am	86.0	86.7
Noon	86.0	86.7
1.00 pm	86.0	86.7
2.00 pm	86.0	86.6
3.00 pm	86.0	86.6
4.00 pm	85.9	86.6

CURRENCY RATES

Mar.19	Bank rate %	Special* Drawing Rights	European † Currency Unit
Sterling	-	0.803927	0.747208
U.S Dollar	7	1.30413	1.20911
Canadian $	13.32	1.53900	1.43195
Austrian Sch.	6½	15.5909	14.3171
Belgian Franc	10¼	46.0325	42.3098
Danish Krone	10½	8.49119	7.80300
Deutsche Mark	6.00	2.21572	2.03494
Neth.Guilder	7.00	2.49545	2.29236
French Franc	10¼	7.48440	6.88106
Italian Lira	13½	N/A	1504.14
Japanese Yen	4¼	198.749	185.659
Norway Krone	8	8.57987	7.92089
Spanish Peseta	-	142.395	130.874
Swedish Krona	12	8.02627	7.40400
Swiss Franc	6.00	1.97641	1.82395
Greek Drach.	20½	N/A	194.437
Irish Punt	-	N/A	0.764052

† European Commission Calculations.
* All SDR rates are for Mar.16

CURRENCY MOVEMENTS

Mar.19	Bank of England Index	Morgan** Guaranty Changes %
Sterling	85.9	-24.5
U.S Dollar	68.2	-9.7
Canadian Dollar	105.2	+0.5
Austrian Schilling	110.5	+12.2
Belgian Franc	111.6	-3.6
Danish Kroner	110.7	+4.7
Deutsche Mark	119.8	+25.1
Swiss Franc	108.8	+17.0
Guilder	115.4	+16.7
French Franc	104.9	-12.0
Lira	101.5	-18.2
Yen	121.9	+62.2

Morgan Guaranty changes: average 1980-1982=100. Bank of England Index (Base Average 1985=100) *Rates are for Mar.16.

OTHER CURRENCIES

Mar.19	£	$
Argentina	7680.75-7701.70	4750.00-4760.00
Australia	2.1390-2.1410	1.3245-1.3255
Brazil	N/A-N/A	N/A-N/A
Finland	6.4520-6.4645	3.9950-3.9980
Greece	260.00-268.20	160.70-160.80
Hong Kong	12.6155-12.6285	7.8130-7.8150
Iran	113.80*	70.70*
Korea(Sth)	1118.60-1136.70	693.60-699.00
Kuwait	0.4735-0.4745	0.2935-0.2940
Luxembourg	56.35-56.45	34.95-35.05
Malaysia	4.3910-4.4020	2.7210-2.7230
Mexico	4383.25-4515.00	2720.00-2800.00
N. Zealand	2.7550-2.7600	1.7055-1.7075
Saudi Ar.	6.0430-6.0485	3.7500-3.7510
Singapore	3.0220-3.0290	1.8720-1.8740
S. Af (Cm)	4.1940-4.2055	2.6015-2.6030
S. Af (Fn)	6.4420-6.5730	3.9840-4.0650
Taiwan	42.75-42.85	26.45-26.50
U.A.E.	5.9165-5.9235	3.6175-3.6735

*Selling rate

POUND SPOT- FORWARD AGAINST THE POUND

Mar.19	Day's spread	Close	One month	% p.a.	Three months	% p.a.
US	1.6105 - 1.6190	1.6115 - 1.6125	0.96-0.94cpm	7.07	2.62-2.59pm	6.46
Canada	1.9055 - 1.9170	1.9065 - 1.9075	0.34-0.26cpm	1.88	0.90-0.77pm	1.74
Netherlands	3.05 - 3.07¼	3.05 - 3.06	1¾-1⅝cpm	6.60	4¾-4⅝pm	6.12
Belgium	56.25 - 56.75	56.35 - 56.45	29-18cpm	4.98	75-57pm	4.67
Denmark	10.38 - 10.45¾	[illegible]	2⅞-2⅛orepm	3.02	7⅛-6⅛pm	2.78
Ireland	1.0190 - 1.0280	1.0205 - 1.0215	0.32-0.27cpm	3.47	0.68-0.58pm	2.47
W. Germany	2.70⅜ - 2.72¾	2.71 - 2.71⅛	1¾-1⅝pfpm	7.44	4½-4⅜pm	6.52
Portugal	239.55 - 241.75	240.25 - 241.25	2-18cdis	-0.50	106-132dis	-1.98
Spain	174.20 - 175.40	174.30 - 174.60	9-15cdis	-0.83	19-7pm	0.30
Italy	2002 - 2015¼	2005¾ - 2006¼	5½-3lirepm	2.52	13½-10pm	2.32
Norway	10.53¾ - 10.61	10.55 - 10.56	3¼-2¾orepm	3.47	8⅞-8pm	3.18
France	9.16 - 9.21½	9.16¾ - 9.17¾	4-3¾cpm	5.05	10-9⅝pm	4.26
Sweden	9.84½ - 9.92¼	9.85¼ - 9.86¼	1-⅛orepm	0.98	1½-¾pm	0.45
Japan	247 - 248½	[illegible]	1⅝-1½ypm	7.55	4½-4⅜pm	7.15
Austria	19.05 - 19.10¼	19.05 - 19.08	10⅞-10groppm	6.57	30¾-27¼pm	6.14
Switzerland	2.42¾ - 2.44	2.42¾ - 2.43¾	1⅜-1¼cpm	6.46	3⅝-3½pm	5.86
ECU	1.3490 - 1.3515	1.3500 - 1.3510	0.55-0.52cpm	4.75	1.40-1.35pm	4.07

Commercial rates taken towards the end of London trading. Six-month forward dollar 5.09-5.04cpm 12 Months 9.22-9.12cpm

DOLLAR SPOT- FORWARD AGAINST THE DOLLAR

Mar.19	Day's spread	Close	One month	% p.a.	Three months	% p.a.
UK†	1.6105 - 1.6190	1.6115 - 1.6125	0.96-0.94cpm	7.07	2.62-2.59pm	6.46
Ireland†	1.5730 - 1.5790	1.5730 - 1.5740	0.44-0.39cpm	3.17	1.62-1.52pm	4.00
Canada	1.1825 - 1.1860	1.1830 - 1.1840	0.50-0.53cdis	-5.21	1.39-1.44dis	-4.78
Netherlands	1.8900 - 1.9035	1.8950 - 1.8960	0.04-0.06cdis	-0.32	0.15-0.18dis	-0.35
Belgium	34.90 - 35.10	34.95 - 35.05	3.00-9.00cdis	-2.06	11.00-21.00dis	-1.83
Denmark	6.43¾ - 6.47¼	6.44 - 6.44½	2.11-2.31oredis	-4.11	5.75-6.25dis	-3.72
W. Germany	1.6770 - 1.6885	1.6825 - 1.6835	0.05-0.03pfpm	0.29	0.05-0.02pm	0.08
Portugal	149.40 - 149.80	149.40 - 149.50	90-100cdis	-7.63	315-330dis	-8.64
Spain	107.95 - 108.65	108.15 - 108.25	58-65cdis	-6.82	170-180dis	-6.48
Italy	1240½ - 1247	1244 - 1244½	4.00-5.50liredis	-4.59	12.00-14.00dis	-4.18
Norway	6.54 - 6.56¼	6.54½ - 6.55	1.90-2.15oredis	-3.71	5.30-5.70dis	-3.36
France	5.67½ - 5.70¾	5.68¾ - 5.69¼	0.95-1.00cdis	-2.06	3.08-3.18dis	-2.20
Sweden	6.11 - 6.13½	6.11¼ - 6.11¾	3.05-3.20oredis	-6.12	9.36-9.51dis	-6.10
Japan	153.20 - 153.75	153.45 - 153.55	0.09-0.07ypm	0.63	0.28-0.25pm	0.69
Austria	11.82¼ - 11.88¼	11.83¼ - 11.84	0.40-0.85grodis	-0.63	0.90-2.30dis	-0.54
Switzerland	1.5040 - 1.5110	1.5080 - 1.5090	0.03-0.07cdis	-0.40	0.17-0.24dis	-0.54
ECU	1.2050 - 1.2115	1.2085 - 1.2095	0.24-0.23cpm	2.33	0.74-0.71pm	2.40

Commercial rates taken towards the end of London trading. † UK, Ireland and ECU are quoted in US currency. Forward premiums and discounts apply to the US dollar and not to the individual currency.

EMS EUROPEAN CURRENCY UNIT RATES

	Ecu central rates	Currency amounts against Ecu Mar.19	% change from central rate	% change adjusted for divergence	Divergence limit %
Belgian Franc	42.1679	42.3098	+0.34	+0.34	±1.5508
Danish Krone	7.79845	7.80300	+0.06	+0.06	±1.6453
German D-Mark	2.04446	2.03494	-0.47	-0.47	±1.1762
French Franc	6.85684	6.88106	+0.35	+0.35	±1.3618
Dutch Guilder	2.30358	2.29236	-0.49	-0.49	±1.5072
Irish Punt	0.763159	0.764052	+0.12	+0.12	±1.6689
Italian Lira	1529.70	1504.14	-1.67	-1.67	±1.5162
Spanish Peseta	132.889	130.874	-1.52	-1.52	±4.2705

Changes are for Ecu, therefore positive change denotes a weak currency. Adjustment calculated by Financial Times.

EXCHANGE CROSS RATES

Mar.19	£	$	DM	Yen	F Fr.	S Fr.	H Fl.	Lira	C $	B Fr.
£	1	1.612	2.713	247.5	9.173	2.433	3.058	2006	1.907	56.40
$	0.620	1	1.683	153.5	5.690	1.509	1.895	1244	1.183	34.99
DM	0.369	0.594	1	91.23	3.381	0.897	1.126	739.4	0.703	20.79
YEN	4.040	6.513	10.96	1000.	37.06	9.830	12.34	8105	7.705	227.9
F Fr.	1.090	1.757	2.958	269.8	10.	2.652	3.330	2187	2.079	61.48
S Fr.	0.411	0.663	1.115	101.7	3.770	1	1.256	824.5	0.784	23.18
H Fl.	0.327	0.528	0.888	81.01	3.003	0.796	1	656.6	0.624	18.46
Lira	0.499	0.804	1.352	123.4	4.573	1.213	1.523	1000.	0.951	28.12
C $	0.524	0.845	1.423	129.8	[illegible]	1.276	1.602	1072	1	29.58
B Fr.	1.773	2.858	4.810	[illegible]	16.26	4.314	5.417	3557	3.381	100.

Yen per 1,000: French Fr. per 10: Lira per 1,000: Belgian Fr. per 100.

FINANCIAL FUTURES AND OPTIONS

LIFFE LONG GILT FUTURES OPTIONS
£50,000 64ths of 100%

Strike Price	Calls-settlements Jun	Calls-settlements Sep	Puts-settlements Jun	Puts-settlements Sep
79	3-48	5-01	0-34	0-59
80	[illegible]	4-20	[illegible]	1-14
81	2-22	3-42	1-08	1-36
82	1-50	3-05	1-36	1-63
83	1-20	2-35	2-06	2-29
84	0-61	2-06	2-47	3-00
85	[illegible]	[illegible]	3-28	3-39
86	0-29	1-23	4-15	4-17

Estimated volume total, Calls 990 Puts 970
Previous day's open int. Calls 20059 Puts 9990

LIFFE US TREASURY BOND FUTURES OPTIONS
$100,000 64ths of 100%

Strike Price	Calls-settlements Jun	Calls-settlements Sep	Puts-settlements Jun	Puts-settlements Sep
89	[illegible]	4-24	0-24	0-62
90	3-04	[illegible]	0-34	1-18
91	2-21	3-04	0-51	[illegible]
92	[illegible]	2-33	1-10	2-07
93	[illegible]	[illegible]	1-39	2-40
94	0-48	1-40	2-14	3-14
95	0-31	1-17	2-41	3-55
96	[illegible]	0-63	3-49	4-37

Estimated volume total, Calls 0 Puts 10
Previous day's open int. Calls 2380 Puts 2207

LIFFE BUND FUTURES OPTIONS
DM250,000 points of 100%

Strike Price	Calls-settlements Jun	Calls-settlements Sep	Puts-settlements Jun	Puts-settlements Sep
8000	2.68	3.42	0.91	1.60
8050	2.35	3.13	[illegible]	1.81
8100	2.05	2.85	[illegible]	2.03
8150	1.77	[illegible]	1.50	2.27
8200	1.53	2.35	1.76	2.53
8250	1.32	2.12	2.05	2.80
8300	1.13	1.90	2.36	3.08
8350	0.96	1.71	2.69	3.39

Estimated volume total, Calls 2391 Puts [illegible]
Previous day's open int. Calls 27756 Puts 25932

LIFFE EUROMARK OPTIONS
DM1m points of 100%

Strike Price	Calls-settlements Jun	Calls-settlements Sep	Puts-settlements Jun	Puts-settlements Sep
9000	0.94	0.86	0.07	0.22
9025	0.72	0.70	0.10	0.31
9050	0.51	0.53	0.14	0.39
9075	0.34	0.40	0.22	0.51
9100	0.21	0.28	0.34	0.64
9125	0.12	0.20	0.50	0.81
9150	0.07	0.14	0.70	1.00
9175	0.04	0.09	0.92	1.20

Estimated volume total, Calls 235 Puts 535
Previous day's open int. Calls 4983 Puts 4568

LIFFE EURODOLLAR OPTIONS
$1m points of 100%

Strike Price	Calls-settlements Mar	Calls-settlements Jun	Puts-settlements Mar	Puts-settlements Jun
9075	0.75	0.56	0	0.05
9100	0.50	0.36	0	0.10
9125	0.25	0.23	0	0.22
9150	0	0.13	0	0.37
9175	0	0.06	0.25	0.55
9200	0	0.02	0.50	0.76
9225	0	0.01	0.75	1.08
9250	0	0	[illegible]	1.24

Estimated volume total, Calls 0 Puts 54
Previous day's open int. Calls [illegible] Puts [illegible]

LIFFE SHORT STERLING OPTIONS
£500,000 points of 100%

Strike Price	Calls-settlements Mar	Calls-settlements Jun	Puts-settlements Mar	Puts-settlements Jun
8400	0.75	0.89	0	0.13
8425	[illegible]	0.69	0	0.18
8450	0.26	0.51	0.01	0.25
8475	0.06	0.35	0.06	0.34
8500	0.01	0.22	0.26	0.46
8525	0	0.15	0.50	0.64
8550	0	0.09	0.75	0.83
8575	0	0.06	1.00	1.05

Estimated volume total, Calls 1077 Puts 1142
Previous day's open int. Calls 75770 Puts 44175

LONDON (LIFFE)

20-YEAR 9% NOTIONAL GILT
£50,000 32nds of 100%

	Close	High	Low	Prev.
Mar	81-22	81-21	81-00	82-00
Jun	82-07	82-19	81-28	83-02
Sep	83-03	82-20	82-20	83-30

Estimated volume 13753 (29748)
Previous day's open int. 34361 (36400)

US TREASURY BONDS 8%
$100,000 32nds of 100%

	Close	High	Low	Prev.
Mar	92-25	92-23	92-21	92-31
Jun	92-17	92-21	92-11	92-21
Sep	92-13			92-17

Estimated volume 3721 (2468)
Previous day's open int. 5295 (5680)

6% NOTIONAL GERMAN GOVT. BOND
DM250,000 100ths of 100%

	Close	High	Low	Prev.
Jun	81.77	83.09	81.54	82.94
Sep	81.82	83.05	81.65	82.96
Dec	81.82			82.96

Estimated volume 49804 (25310)
Previous day's open int. 59183 (59880)

6% NOTIONAL LONG TERM JAPANESE GOVT. BOND Y100m 100ths of 100%

	Close	High	Low	Prev.
Jun	92.95	93.20	93.00	93.80
Sep	93.10			93.94
Dec				

Estimated volume 110 (345)
Previous day's open int. 714 (690)

THREE MONTH STERLING
£500,000 points of 100%

	Close	High	Low	Prev.
Mar	[illegible]	84.77	84.72	84.81
Jun	84.76	84.82	84.70	84.89
Sep	85.22	85.24	85.15	85.32
Dec	85.62	85.66	85.56	85.72
Mar	86.01	86.01	85.94	[illegible]
Jun	86.41	86.42	86.34	86.50
Sep	86.83	[illegible]	86.76	86.93
Dec	87.26	87.26	87.17	87.36

Est. Vol. (inc. figs. not shown) 33467 ([illegible])
Previous day's open int. 163622 (162621)

THREE MONTH EURODOLLAR
$1m points of 100%

	Close	High	Low	Prev.
Mar	91.50	91.50	91.49	91.48
Jun	91.26	91.31	91.25	91.29
Sep	91.16	91.19	91.14	91.17
Dec	91.01	91.03	91.00	91.02
Mar	90.94	90.95	90.93	90.94
Jun	90.84			90.84
Sep	90.82			90.82
Dec	90.74			90.75

Est. Vol. (inc. figs. not shown) [illegible]
Previous day's open int. [illegible]

THREE MONTH EUROMARK
DM 1m points of 100%

	Close	High	Low	Prev.
Mar	91.63	91.63	91.58	91.48
Jun	[illegible]	[illegible]	[illegible]	91.61
Sep	90.74	90.74	90.61	90.79
Dec	90.65	90.68	90.60	90.77
Mar	90.67	90.71	90.68	[illegible]
Jun	90.78	90.82	90.76	90.84
Sep	90.94	90.98	90.98	[illegible]
Dec	90.98			91.04

Estimated volume 16819 (11411)
Previous day's open int. 62494 (62921)

THREE MONTH ECU
ECU 1m points of 100%

	Close	High	Low	Prev.
Mar	89.13	89.20	89.16	89.20
Jun	88.75	88.77	88.69	88.82
Sep	88.68	88.72	88.67	88.83
Dec	88.70	88.72	88.50	88.85

Estimated volume 599 (210)
Previous day's open int. 4389 (4393)

FT-SE 100 INDEX
£25 per full index point

	Close	High	Low	Prev.
Mar	2230.0	2264.0	2228.0	2269.0
Jun	2267.0	2302.0	2267.0	2312.0
Sep	2316.0	2320.0	2319.0	2359.0

Estimated volume 4649 (4395)
Previous day's open int. 24809 (26083)

POUND-$ (FOREIGN EXCHANGE)

Spot	1-mth.	3-mth.	6-mth.	12-mth.
1.6120	1.6025	1.5860	1.5614	1.5208

IMM-STERLING $s per £

	Latest	High	Low	Prev.
Mar	1.6166	1.6186	1.6166	1.6192
Jun	1.5902	1.5924	1.5900	1.5936
Sep	-		[illegible]	[illegible]

CHICAGO

U.S. TREASURY BONDS (CBT) 8%
$100,000 32nds of 100%

	Latest	High	Low	Prev.
Mar	92-20	93-04	92-19	93-02
Jun	92-13	92-29	92-10	92-26
Sep	92-06	92-24	92-06	92-21
Dec	92-19	92-19	92-02	92-17
Mar	-	-	-	92-12
Jun	-	-	-	92-06
Sep	-	-	-	92-01
Dec	-	-	-	91-28
Mar	-	-	-	91-23
Jun	-	-	-	91-17
Sep	-	-	-	91-11

U.S. TREASURY BILLS (IMM)
$1m points of 100%

	Latest	High	Low	Prev.
Jun	92.19	92.23	92.18	92.24
Sep	92.21	92.23	92.20	92.24
Dec	-	-	-	92.15
Mar	-	-	-	92.00
Jun	-	-	-	91.84

SWISS FRANC (IMM)
SFr 125,000 $ per SFr

	Latest	High	Low	Prev.
Mar	0.6632	0.6637	0.6627	0.6624
Jun	0.6619	0.6628	0.6616	0.6616
Sep	0.6617	0.6625	0.6617	0.6618
Dec	-	-	-	[illegible]

JAPANESE YEN (IMM)
Y12.5m $ per Y100

	Latest	High	Low	Prev.
Mar	0.6513	0.6520	0.6509	0.6550
Jun	0.6525	0.6532	0.6522	0.6562
Sep	0.6541	0.6541	0.6535	0.6575

DEUTSCHE MARK (IMM)
DM125,000 $ per DM

	Latest	High	Low	Prev.
Mar	0.5938	0.5948	0.5937	0.5889
Jun	0.5939	0.5948	0.5937	0.5891
Sep	0.5935	0.5945	0.5925	0.5886

THREE-MONTH EURODOLLAR (IMM)
$1m points of 100%

	Latest	High	Low	Prev.
Mar	91.49	91.50	91.49	91.49
Jun	91.26	91.29	91.25	91.31
Sep	91.14	91.17	91.14	91.20
Dec	91.00	91.02	90.99	91.05
Mar	90.93	90.95	90.92	90.98
Jun	90.82	90.85	90.82	90.88
Sep	90.82	90.84	90.82	90.86
Dec	90.73	90.75	90.73	90.78

STANDARD & POORS 500 INDEX
$500 times index

	Latest	High	Low	Prev.
Jun	343.45	343.75	342.85	345.45
Sep	348.10	348.20	347.70	349.85
Dec	-		[illegible]	[illegible]

PHILADELPHIA SE £/$ OPTIONS
£31,250 (cents per £1)

Strike Price	Calls Apr	Calls May	Calls Jun	Calls Sep	Puts Apr	Puts May	Puts Jun	Puts Sep
1.550	6.49	6.60	6.66	6.94	0.50	0.94	1.90	4.01
1.575	4.13	4.46	4.78	5.31	0.70	1.70	2.70	5.23
1.600	2.43	2.95	3.31	4.01	1.55	2.62	3.93	6.64
1.625	1.21	1.86	2.20	2.97	2.86	4.08	5.44	8.22
1.650	0.50	1.02	1.49	2.24	4.57	5.84	7.18	9.96
1.675	0.14	0.52	0.91	1.61	6.74	7.85	9.13	11.84
1.700	-	0.22	0.57	1.08	9.08	10.05	11.13	13.85

Previous day's open int: Calls 452,407 Puts 469,764 (All currencies)
Previous day's volume: Calls 36,995 Puts 21,091 (All currencies)

10 YEAR 10% NOTIONAL FRENCH BOND (MATIF) FUTURES

	Open	Close	Change	High	Low	Yield	Open int.
March	100.00	99.48	-0.62	100.00	99.48	10.09	14,334
June	100.26	99.74	-0.52	100.26	99.52	10.04	62,017
September	100.34	100.00	-0.36	100.34	100.00	10.03	7,546
December	-	-	-	-	-	9.96	3,905

Estimated volume 85,007 Total Open Interest 87,402

OPTION ON LONG-TERM FRENCH BOND (MATIF)

Strike	Calls June	Calls Sept.	Calls Dec	Puts June	Puts Sept.	Puts Dec
98	[illegible]	-	-	0.78	1.14	-
99	1.78	2.29	-	1.08	-	-
100	1.24	-	-	1.50	-	-
101	0.82	-	-	2.08	-	-
102	0.53	-	-	-	-	-
103	0.33	-	-	-	-	-
Open int.	142,498	18,482	1,500	138,018	9,255	1,350

Estimated volume 31,213 Total Open Interest 311,103

THREE-MONTH PIBOR FUTURES (MATIF) (Paris interbank offered rate)

	Open	Close	Change	High	Low	Yield	Open int.
June	89.22	89.08	-0.08	89.26	89.07	10.92	12,673
September	89.19	89.06	-0.07	89.19	89.05	10.95	4,404
December	89.13	89.03	-0.04	89.13	89.01	10.95	2,392
March	-	-	-	-	-	-	0

Estimated volume 7,971. Total Open Interest 19,499

CAC-40 FUTURES (MATIF) Stock Index

	Open	Close	Change	High	Low	Open int.
March	1960.0	1934.0	-37.0	1960.0	1934.0	6,554
April	1955.0	1937.0	-34.5	1961.0	1934.5	1,712
May	1956.0	1956.0	-16.5	1956.0	1956.0	129
June	-	-	-	-	-	37

Estimated volume 6,025 Total Open Interest 8,432

BASE LENDING RATES

	%
ABN Bank	15
Adam & Company	15
Allied Trust Bank	15
Allied Irish Bank	15
● Henry Ansbacher	15
Associates Cap Corp	15½
● B & C Merchant Bank	15
Bank of Baroda	15
Banco Bilbao Vizcaya	15
Bank Hapoalim	15
Bank Credit & Comm	15
Bank of Cyprus	15
Bank of Ireland	15
Bank of India	15
Bank of Scotland	15
Banque Belge Ltd	15
Barclays Bank	15
Benchmark Bank PLC	15
Brit Bk of Mid East	15
● Brown Shipley	15
CL Bank Nederland	15
● Charterhouse Bank	15
Citibank NA	15
City Merchants Bank	15
Clydesdale Bank	15
Comm.Bk.N.East	15
Co-operative Bank	*15
Coutts & Co	15
Cyprus Popular Bk	15
Dunbar Bank PLC	15
Duncan Lawrie	15
Equatorial Bank plc	15
Exeter Trust Ltd	15½
Financial & Gen. Bank	15
First National Bank Plc.	16½
● Robert Fleming & Co.	15
Robert Fraser & Ptnrs.	15½
Girobank	15
● Guinness Mahon	15
HFC Bank plc	15
● Hambros Bank	15
Hampshire Trust Plc	15½
Heritable & Gen Inv Bnk.	15
● Hill Samuel	§15
C. Hoare & Co.	15
Hongkong & Shangh	15
● Leopold Joseph & Sons	15
Lloyds Bank	15
Meghraj Bank Ltd	15
McDonnell Douglas Bnk.	15
Midland Bank	15
Mount Banking	15
Nat Bk. of Kuwait	15
NatWestminster	15
Northern Bank Ltd	15
Norwich Gen. Trust	15
Nykredit Mortgage Bank	15½
PRIVATbanken Limited	15
Provincial Bank PLC	16
Roxburghe G'rantee	15½
Royal Bk of Scotland	15
Royal Trust Bank	15
● Smith & Williamson Secs.	15
Standard Chartered	15
TSB	15
● United Bk of Kuwait	15
United Mizrahi Bank	15
Unity Trust Bank Plc	15
Western Trust	15
Westpac Bank Corp.	15
Whiteaway Laidlaw	15
Yorkshire Bank	15

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MONEY MARKETS

London rates firm

THE WEAKENING of sterling against a strong D-Mark pushed interest rates higher on the London money market yesterday. Trading was quiet and nervous ahead of today's UK Budget. Three-month interbank rose to 15⅛-15¼ per cent from 15¼-15⅛, and 12-month was quoted at 15⅝-15⅞ per cent against 15⅝-15½.

Short sterling futures lost ground on Liffe as the pound fell and cash rates rose. June delivery opened lower at 84.81 and fell to a low of 84.70, before closing at 84.76 against 84.89 on Friday.

UK clearing bank base lending rate
15 per cent
from October 5

The Bank of England initially forecast a money market credit shortage of £1,000m, but revised this to £950m in the afternoon. Total help of £913m was provided.

An early round of help was offered and at that time the Bank of England bought £195m bills outright, by way of £6m bank bills in band 1 at 14⅞ per cent; £87m Treasury bills in band 2 at 14⅞ per cent; £1m local authority bills in band 2 at 14⅞ per cent; and £101m bank bills in band 2 at 14⅞ per cent.

Before lunch another £223m bills were purchased, via £21m bank bills in band 1 at 14⅞ per cent and £202m bank bills in band 2 at 14⅞ per cent. In the afternoon £435m bills were bought, through £117m bank bills in band 1 at 14⅞ per cent and £318m bank bills in band 2 at 14⅞ per cent. Late assistance of around £60m was also provided.

Bills maturing in official hands, repayment of late assistance and a take-up of Treasury bills drained £1,042m, with unwinding of repurchase agreements on bills absorbing £557m, and bank balances below target £190m. These outweighed Exchequer transactions adding £205m to liquidity, and a fall in the note circulation of £670m.

In Frankfurt call money rose to 7.85 from 7.80 per cent with the market showing little reaction to a sharp downward revision in January West German monetary growth. The Bundesbank announced that M3 money supply grew at a revised rate of 5.9 per cent, compared with an earlier estimate of 8.4 per cent. This brought growth to within the central bank's target of 4 per cent to 6 per cent for 1990.

March tax payments have started to drain liquidity, leading to a decline in banks reserve holdings to DM62.9bn last Thursday from DM64.8bn on Wednesday. There was little reaction to the result of the election in East Germany.

FT LONDON INTERBANK FIXING

(11.00 a.m. Mar.19) 3 months US dollars		6 months US Dollars	
bid 8¾	offer 8⅞	bid 8⅞	offer 8⅞

The fixing rates are the arithmetic means rounded to the nearest one-sixteenth, of the bid and offered rates for $10m quoted to the market by five reference banks at 11.00 a.m. each working day. The banks are National Westminster Bank, Bank of Tokyo, Deutsche Bank, Banque National de Paris and Morgan Guaranty Trust.

MONEY RATES

NEW YORK
(Lunchtime)

Prime rate	10
Broker loan rate	9¾
Fed.funds	8¼
Fed.funds at intervention	8¼

Treasury Bills and Bonds

One month	8.01	Three year	8.68
Two month	7.95	Four year	8.71
Three month	8.20	Five year	8.66
Six month	8.31	Seven year	8.67
One year	8.37	10-year	8.60
Two year	8.67	30-year	8.57

Mar.19	Overnight	One Month	Two Months	Three Months	Six Months	Lombard Intervention
Frankfurt	7.80-7.90	8.10-8.25	8.15-8.30	8.25-8.40	8.70-8.85	8.00
Paris	10⅛-10¼	10⅜-10⅛	-	10⅜-10⅝	-	10.00
Zurich	7⅞-8⅛	8¾-9	-	8¾-9	-	-
Amsterdam	8.10-8.20	8.54-8.62	-	8.75-8.85	-	-
Tokyo	6⅞-6⅞	7⅞-7⅞	-	7⅝-7⅞	-	-
Milan	12½-13¼	13-13½	-	13¼-13½	-	-
Brussels	10.25	10⅜-10⅝	-	10⅞-10⅝	-	-
Dublin	10⅞-11	11⅞-12	12⅛-12½	12⅛-12⅝	13-13¼	-

LONDON MONEY RATES

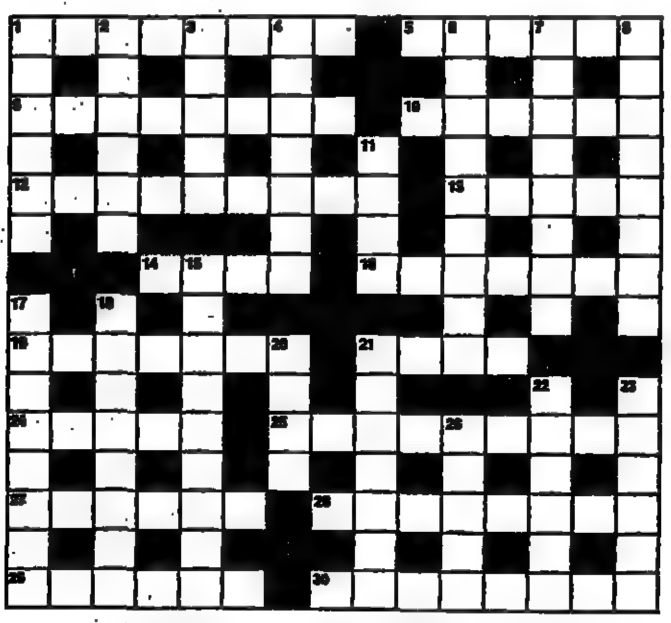
Mar 19	Overnight	7 days notice	One Month	Three Months	Six Months	One Year
Interbank Offer	15⅛	15	15⅛	15⅛	15⅛	15⅝
Interbank Bid	14½	14⅞	15⅛	15⅛	15⅝	15½
Sterling CDs	-	-	15⅛	15⅛	15⅛	15⅛
Local Authority Deps.	15	15	15⅛	15¼	15½	15⅞
Local Authority Bonds	-	-	-	-	-	-
Discount Mkt Deps.	15	14⅞	14⅞	14⅞	-	-
Company Deposits	-	-	15¼	15⅜	15⅝	15⅞
Finance House Deposits	-	-	15⅛	15¼	15½	15⅝
Treasury Bills (Buy)	-	-	14⅞	14⅞	-	-
Bank Bills (Buy)	-	-	14⅞	14⅞	14⅞	-
Fine Trade Bills (Buy)	-	-	15⅞	15⅞	15⅞	-
Dollar CDs	-	-	8.40	8.45	8.65	8.95
SDR Linked Dep. Offer	-	-	9⅛	9¼	9⅜	9⅝
SDR Linked Dep. Bid	-	-	8⅞	9⅛	9¼	9½
ECU Linked Dep. Offer	-	-	10⅝	10¾	11¼	11½
ECU Linked Dep. Bid	-	-	10½	10⅝	11⅛	11⅜

Treasury Bills (sell); one-month 14½ per cent; three months 14⅞ per cent; Bank Bills (sell): one-month 14⅞ per cent; three months 14⅞ per cent; Treasury Bills; Average tender rate of discount 14.6165 p.c. ECGD Fixed Rate Sterling Export Finance. Make up day February 28 1990. Agreed rates for period March 26 1990 to April 24, 1990, Scheme I: 15.87 p.c., Schemes II & III: 16.41 p.c. Reference rate for period Feb.1,1990 to February 28, 1990, Scheme IV&V: 15.141 p.c. Local Authority and Finance Houses seven days' notice, others seven days' fixed. Finance Houses Base Rate 15½ from March 1, 1990: Bank Deposit Rates for sums at seven days notice 4 per cent. Certificates of Tax Deposit (Series 6); Deposit £100,000 and over held under one month 11½ per cent; one-three months 13 per cent; three-six months 13 per cent; six-nine months 13 per cent; nine-twelve months 13 per cent; Under £100,000 11½ per cent from Oct 9,1989. Deposits withdrawn for cash 5 per cent.

JOTTER PAD

CROSSWORD

No.7,193 Set by VIXEN



ACROSS

1 Trying to dress in front of a number (8)
5 Dull forms drop it (6)
9 Dwelling divided to accommodate an entire team (8)
10 Give 12 to royal egghead (6)
12 Gams that can make a mum tense (9)
13 Places where the retired crowd is found (5)
14 Sound work! (4)
16 Keeping from cracking jokes? (7)
19 Personal application for bearing trees (3-4)
21 The man from Dorset has got the post (4)
24 Head having credit to grant (5)
25 Rule a girl out of order, though it's irregular (9)
27 A social worker may well get on edge in Northern Ireland (6)
28 Odds on key service (8)
29 The endless gap calling for economy (6)
30 Insisted upon a different sort of dessert (8)

DOWN

1 Sewing material that's right in the modern era (6)
2 Free, though it could be rendered secure (6)
3 A plant for example of the French raisers (5)
4 They take care of many among the underground workers (7)
6 Viewing to excess is a mistake (9)
7 Flat round insect seen where there's fruit (8)
8 Manoeuvring when up, as greed's involved (8)
11 A beast with guns turned up (4)
15 Dispute after glaring and he' ll seek legal redress! (9)
17 A fondness for quiet charm (8)
18 A journalist about to take a drink (8)
20 Going off in great spirits (4)
21 Husbands carrying the man's bundles (7)
22 Pretty rural cottage providing a home for a story-writer (6)
23 Well wrapped up against the cold, so was in no hurry (6)
26 Order giving rise to anger (5)

Solution to Puzzle No.7,192

HORNET PRESUMES
E L A J E A U P
ALLOTMENT LIFER
D A S R A M T I
LATE ASPIRATION
I I A E W G G
NOONDAY SQUARE
E M V H E S
ASSENT ADDISON
T N A M I T Y
RECITATION FREE
A O U T E P A H
CATER LIBRARIAN
E T E E A R N E
STANDARD STATES

LONDON STOCK EXCHANGE

AUSTRIA

March 19	Sch	+ or −
Austrian Airlines	5,110	—
Creditanstalt	7,050	−250
Goesser	7,720	+20
Interunfall	28,000	—
Jungbunzlauer	18,950	−50
Laenderbank	1,950	—
OeMV	13,850	−50
Perlmooser	2,900	—
Reininghaus	3,280	+80
Semperit	292	+2
Steyr-Daimler	230	+2
Veitscher Mag	2,510	+132
Verbund	630	—

BELGIUM/LUXEMBOURG

March 19	Frs.	+ or −
Arbed	4,940	−5
B.B.L.	2,880	—
Bank Intl.a Lux	15,250	—
Banque Gen. Du Lux	14,675	+25
Banque Nat Belg	33,400	—
Barco	2,175	−20
Bekaert B	15,900	−75
Ciment CBR	7,750	−190
Cobepa	5,680	−60
Do. AFV 1	5,750	—
Cockerill	198	−2
Colruyt	22,600	—
Delhaize	5,950	+60
EBES	4,115	+15
Do. AFV 1	4,070	−20
Fabrique Nat.	375	+3
GIB Group	1,214	−12
Do. AFV	1,200	−16

FRANCE (continued)

March 19	Frs.	+ or −
Beghin-Say	783	−22
Do. Certs	565	+5
Bongrain	2,870	−10
Bouygues	598	−6
CCIP	1,362	+6
CMB Packaging	366	−7
Carrefour	3,335	−19
Casino	153	−1
Cetelem	530	+4
Chargeurs	1,153	−11
Ciments Fr.	1,469	−19
Club Mediterranee	676	−2
Coflexip	402	+1
Cogiff	366	+1
CGE	578	−2
Coparex	454	+12
Cred Foncier Fr	1,288	−24
Credit National	1,307	−8
Damart	3,490	+48
Docks de France	4,195	−20
Dollfus-Mieg	574	+7
Dumez S.A.	875	−25
Eaux (Cie Gen)	2,325	−17
Ecco	535	−12
Electrofinance	960	—
Elf-Aquitaine	635	−2
Do. Certs	460	—
Epeda-Bertrand	1,340	+40
Essilor	2,552	−6
Eternit (Fin.)	1,908	−20
Euraftrance	2,306	+5
Eurocom	1,919	+14
Euro Disneyland	99	−1.5
Euromarche	4,100	−25
Exor	1,727	+7
Finextel	200	—

CANADA

TORONTO

4pm prices March 19

MONTREAL

4pm prices March 19

INDICES

NEW YORK DOW JONES

STANDARD AND POOR'S

NEW YORK ACTIVE STOCKS

TRADING ACTIVITY

CANADA TORONTO

TOKYO - Most Active Stocks

Monday March 19 1990

4pm prices March 19

NEW YORK STOCK EXCHANGE COMPOSITE PRICES

12 Month High	12 Month Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
		– A – A – A –								
37½	25	AAR	.48	1.6	10	1343	29⅝	29½	29½	– ⅛
9¼	8½	ACM n	1.26	14.		28	9⅛	9	9	
11⅜	10½	ACMIn	1.26	11.		689	11	10⅞	11	+ ⅛
9⅞	7⅜	ACM M	n1.01	13.		494	7⅝	7⅜	7⅝	– ⅛
12⅛	11½	ACMMM				303	11⅝	11⅝	11⅝	– ⅛
11½	10	ACM Sc	1.26	12.		1016	10⅞	10⅝	10⅝	– ⅛
9⅝	8⅛	ACMSp	1.01	12.		712	8⅞	8⅝	8⅝	– ⅛
22¼	13	AL Lab	.16	.7	20	56	21½	21¼	21½	
4⅜	3⅛	AMCA	.12e	3.5	42	28	3⅝	3⅛	3⅝	
6⅜	3½	AM Intl			11	549	3⅝	3½	3⅝	
23½	16⅜	AM In pf	2	12.		13	17	16⅞	16⅞	
107¼	52½	AMR			9	8779	66¼	65	66⅝	+ 1⅛
6¼	3⅛	ARX				16	3⅝	3⅝	3⅝	– ⅛
72¼	39	ASA	3a	5.3		1732	57⅛	56⅝	56¼	+ ⅜
70⅜	51	AbtLab	1.68	2.6	17	2898	65	64⅝	65	+ ⅜
13	8⅞	AcmeC	.40	4.2	11	231	9⅝	9⅝	9½	– ⅛
9¼	7	AcmeE	.32	3.5	12	4	9	9	9	
36½	27	Acuson			22	366	34⅞	34⅝	34⅞	+ ⅛
18½	12⅞	AdaEx	2.06e	13.		138	16	15⅝	15⅞	
15⅝	7¼	Adobe				270	12⅝	12⅛	12⅛	– ⅜
20¼	16⅞	Adob pf	1.84	9.9		12	18⅝	18⅝	18⅝	– ⅛
21⅞	19⅞	Adob pf	2.40	11.		34	21½	21⅜	21½	+ ⅛
10½	6⅞	AMD			28	8202	9⅝	9⅛	9⅛	+ ⅜
35	28¼	AMD pf	3	9.9		7	30½	30	30¼	– ⅛
10⅛	5	Advest	.16	2.7	8	163	6⅛	6	6	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Continued on Page 47

NYSE COMPOSITE PRICES

Continued from previous Page

[illegible]

AMEX COMPOSITE PRICES

4pm prices March 19

[illegible]

NASDAQ NATIONAL MARKET

5pm prices March 19

[illegible]

AMERICA

Dow recovers after 30-point slump earlier

Wall Street

AFTER a bout of early weakness in both stock and bond markets in reaction to Friday's substantial rallies, both markets recovered their poise, *writes Janet Bush in New York.*

The Dow Jones Industrial Average slumped nearly 30 points during the morning session but then began on a steady recovery. The index closed 14.42 points higher at 2,755.63 on low volume of 143m shares.

On Friday, the Dow had closed 45.50 points higher at 2,741.22 with most of those gains on technical buying related to the expiration of March stock index futures and options contracts.

The Treasury bond market, which was up by as much as ⅞ point on Friday, dipped back to as much as ¼ point lower at mid-session before recovering to show small losses in the short end of the yield curve and marginal gains at the long end. Treasuries had surged on weaker than expected industrial production data for February but, even at the time, some bond analysts thought the buying somewhat overdone.

Events overseas tended to be negative for US markets yesterday although only early in the session. The fall in US equities during the morning session appeared to owe more to profit-taking after Friday's technical surge than to the sharp drop in Tokyo shares overnight. The 4.15 per cent drop in the Nikkei 225 index certainly pushed US stocks lower at the opening yesterday but they then stabilised.

The bond market was somewhat undermined by a plunge in West German bond prices following the weekend electoral victory for conservative, pro-unification forces in East Germany.

US markets were somewhat cautious in advance of today's release of the Consumer Prices Index for February and the January merchandise trade balance. The CPI is expected to have risen by around 0.3 per cent and 0.4 per cent once food and energy prices are stripped out. The trade deficit is forecast to have widened to between $9.5bn and $10bn from December's shortfall of $7.2bn.

The Dow Jones Transportation Average was in focus, rising 22.41 to 1,179.23 in response to news of an alliance between investors Coniston Partners and three of United Airlines' unions, which will pursue a buy-out of UAL, the parent company. The news boosted airline stocks. UAL rose $11⅞ to $153⅞, AMR, the holding company for American Airlines, added $1⅛ to $66⅞ and Delta Airlines gained $1⅞ to $73⅛.

Among blue chip issues, International Business Machines slipped $⅝ to $109⅛, Merck was unchanged at $70⅞ and International Paper fell $⅝ to $52⅞.

Oil stocks were generally weaker following a collapse in crude oil futures contracts yesterday morning which took both April and May crude contracts below the $20 a barrel level. Exxon dipped $⅛ to $47⅛, Mobil fell $⅝ to $62⅞ and Chevron dropped $1¼ to $69¼.

Single-country funds offering investment in West Germany were generally higher after the East German poll results. Germany Fund rose $1⅛ to $17⅞ and New Germany Fund rose $⅝ to $17⅝. Future Germany Fund, however, fell $¼ to $17⅛. Brazil Fund slumped $1⅞ to $11⅞ after the country's president announced a package of economic measures including a wage and price freeze, sharp tax increases and a highly restrictive monetary policy.

Barnett Banks fell $⅝ to $30¼ after the company's announcement late on Friday that it expected fourth quarter earnings of 24 cents to 29 cents a share compared with $1 a share in the year ago period. The drop was attributed mainly to a $60m boost to its loan loss reserves.

Canada

IN TORONTO as well, share prices clawed their way back from early weakness to close mixed in light trading.

The composite index ended 11.43 points higher at 3,772.13, the day's best level, but declining shares outnumbered advances 313 to 248.

Volume amounted to 21.1m shares, worth C$239m, down from Friday's 25m shares, valued at C$336.2m.

EUROPE

Early joy at East German election results wears thin

THE EAST German election results were welcomed at first by Frankfurt with a record in heavy volume, but it failed to sustain its initial reaction, *writes Our Markets Staff.*

FRANKFURT had a good start, with a 17.69-point, or 2.2 per cent, rise in the FAZ index to a record high of 810.65 at midsession and an early DAX reading of 1,931.08 against its February 5 peak of 1,939.43.

Turnover more than doubled from DM6.8bn to DM13.9bn on the strong showing of the right-wing alliance in Sunday's East German elections.

However, some investors tried to to sell into the election results on the old stock market adage, "buy on the rumour, sell on the news." A rise of 5 basis points to 8.96 per cent in the Bundesbank's average bond yield also led to caution later in the session, and the DAX finished with a gain of 17.08, or 0.9 per cent, to 1,906.77.

This led to some individual extremes. Daimler eased DM2 to DM903, BMW was uninspired and chemicals, too, put in a dull performance. However, Volkswagen finished DM21.50 higher at DM596.50 after it confirmed weekend newspaper reports that it is in talks over a broad business alliance with the Czechoslavakian carmaker, Skoda.

Other blue chips expected to gain substantially from the overhaul of the East German economy include Siemens, which led the most active stocks list in turnover of DM1.92bn and rose DM21 to DM805; and Deutsche Bank, which followed in DM1.35bn and rose DM12.50 to DM793.

Apparently ignoring the ongoing threat from the IG Metall wage and working hours demands, Krupp, Metallgesellschaft and Preussag rose by DM12.50, DM23 and DM21.30, to DM320, DM713 and DM436 respectively.

VIENNA welcomed the East German election results with a further record, as the bourse index rose 8.9 to 739.21. Construction companies continued to benefit from East bloc prospects: Wienerberger rose Sch380 to Sch7,580 and Universale Sch200 to Sch4,210.

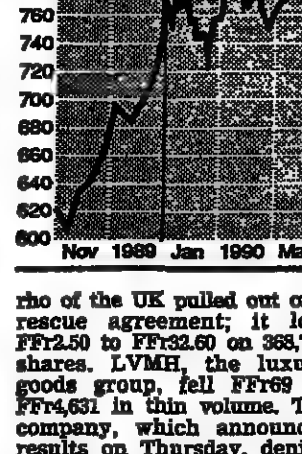
PARIS weakened throughout the day, depressed by Wall Street's lower opening, Tokyo's decline and fears of higher interest rates from a rapid German reunification after East Germany's election results.

The CAC 40 index lost 21.86 to 1,936.96. Bouygues, the construction company, lost FFr6 to FFr590 after a block of 6 per cent of its capital was traded at FFr600 a share. Société Générale de Belgique later confirmed that it had sold the block, with Suez the rumoured buyer. A total of 946,775 Bouygues shares were traded, raising an otherwise modest bourse turnover to about FFr2.4bn.

Scoa, the distribution group, continued to decline after Lonrho of the UK pulled out of a rescue agreement; it lost FFr2.50 to FFr32.60 on 368,700 shares. LVMH, the luxury goods group, fell FFr69 to FFr4,631 in thin volume. The company, which announces results on Thursday, denied reports at the weekend that it was planning to buy another 12 per cent stake in Guinness.

W. Germany

FAZ Aktien Index



AMSTERDAM eased in thin trading after gains in the last two weeks, pulled down by a weaker domestic bond market and nervousness following Tokyo's fall. The CBS tendency index dropped 1.9 to 113.8.

Nedlloyd, the transport group which was heavily bought in recent weeks by UK institutions on takeover speculation, fell Fl 4.20 to Fl 94.50.

Bank Kempen was suspended after closing at Fl 18.50 on Friday; a company statement is expected today.

MILAN gained in active trading. Speculation that Mr Carlo de Benedetti would settle the fight for control of the publisher, Mondadori, by selling his stake in Mondadori to Mediobanca in return for a stake in Generali, the insurer, pushed up the stocks involved.

Cir, Mr de Benedetti's holding company which is also rumoured to be about to sell its stake in Société Générale de Belgique, added L60 to L4,860. Generali rose L790 to L39,690 and dragged up other insurance stocks with it. Olivetti rebounded from lows last week and added L161 to L6,525.

Stet, the telecommunications company, rose L105 to L5,312 following press coverage of a favourable company analysis by Goldman Sachs. The Comit index rose 7.66 to 683.44.

MADRID looked more lively than in recent days as domestic investors showed increased interest, although the general index was little changed at the end of the pit session, losing 0.18 to 268.84.

In banking stocks, Banesto rose Pta130 to Pta3,640 with 52,500 shares traded by the end of continuous trading.

OSLO succumbed to profit-taking after its record highs last week and oil stocks eased on lower prices for Norway's North Sea crude. The all-share index fell 10.95 to 638.78.

BRUSSELS surrendered early gains to close lower in sparse volume. The cash market index fell 11.10 to 6,052.50.

Cement maker Ciment CBR dropped BFr190 to BFr7,750 after news last week of a big increase in 1989 profits. The Belgian Banking Commission said it was investigating the sharp rise in CBR's share price before the announcement. Solvay, the chemicals group, rose BFr125 to BFr13,625 on hopes that that it would recover East German assets expropriated about 50 years ago.

STOCKHOLM had a delayed reaction to the central bank's raising of interest rates last week. The Affärsvärlden General index fell 10.7 to 1,130.9.

SOUTH AFRICA

JOHANNESBURG reached a new high, buoyed by strong mining shares and continued optimism following last week's budget. The JSE all-share index climbed 51 to 3,392.

ASIA PACIFIC

Nikkei falls 4% on yen and interest rate fears

Tokyo

THE OLD STORY of the weakening yen and rising short-term interest rates, as well as rumours that a large speculative group had run into financial difficulties, led share prices sharply lower in thin trading, *writes Michiyo Nakamoto in Tokyo.*

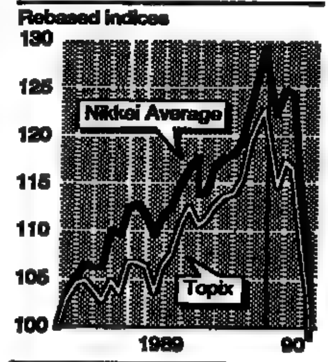
The Nikkei average lost 1,350.20, or 4.1 per cent, to close at 31,263.24, its third largest ever fall in points terms. The broad-based Topix index lost 92.98 to 2,326.23, its fourth largest fall. The Nikkei average initially gained more than 100 to a day's high of 32,721.44 on arbitrage buying, but fell victim to continued selling as trading got under way, chalking up a loss of more than 800 by midday.

Selling gathered pace in the afternoon and the Nikkei nosedived to a low of 31,198.21 before recovering slightly. Losses overwhelmed gains by 1,017 to 45 with 58 unchanged. Turnover slipped to 412m shares from 487m on Friday. In London, the ISE/Nikkei index fell 19.81 to 1,660.22.

Uncertainty about the timing of an expected increase in the official discount rate continued to weigh on sentiment yesterday, while a sharp fall in futures led to arbitrage selling on the cash market. The June Topix contract lost 90 points in afternoon trading, the maximum allowed in one day.

Japan

Rebased indices



Contrary to expectations, selling by institutions continued even after the end of trading for the year for specialised investment trust funds (tokkin) on March 15. New, tighter regulations for specialised funds have contributed to the drain of institutional money from tokkin trusts, analysts said. Under the new rules, which come into effect next month, institutional investors must use an investment advisory company to manage their tokkin funds, which means more detailed accounts of investment activities.

Individual investors were prevented from giving the market support by a tight margin buying situation. Several smaller securities firms were reported to be unable to allow any more buying on margin, as they had used up their allocated quota.

To make matters worse, there were rumours that a large speculative group that had been accumulating shares in several issues was likely to go bankrupt.

Large capital issues widely held by institutional investors were sold heavily. Nippon Steel topped the volumes list with 11.8m shares traded and fell Y11 to Y605. Kobe Steel followed with 9.3m shares and lost Y14 to Y731. Ishikawajima-Harima Heavy Industries took a sharp fall of Y70 to Y1,100.

High-technology electricals were also hurt. Toshiba was third in volume with 6.4m shares and dropped Y50 to Y1,000. Hitachi also lost Y50.

Osaka also suffered a large fall, with the OSE down 1,409.75, or 4 per cent, at 33,671.74. This was the third largest drop in history for Osaka as well. Volume rose to 199m shares from 142m on Friday. Nippon Chemical Industrial, which has risen recently on speculative buying, plunged Y420 to Y2,670.

Roundup

THE TOKYO plunge had little effect on the rest of Pacific Basin, merely tipping Australia off its day's high and prompting small declines in Singapore and Hong Kong.

AUSTRALIA rose as a weaker local dollar boosted demand for resource stocks. The All Ordinaries index gained 14.4 to 1,598.9 against a high of 1,604.5 and golds advanced 54.8 to 1,818.2.

Volume rose to 115m shares worth A$227m, from 92m and A$168m on Friday. BHP, the country's biggest oil producer, gained 16 cents to A$9.98 with 4.1m shares traded. In the gold sector, Placer Pacific rose 27 cents to A$3.65.

SINGAPORE declined in response to the fall by Japanese shares, but ended above its day's low as some bargain-hunting set in. The Straits Times Industrial index lost 8.13 to 1,562.86 as volume picked up to 79m shares worth S$161m from Friday's 66m and S$143.5m.

HONG KONG also eased in reaction to Tokyo before finding support at its lowest levels. The Hang Seng index ended 15.07 down at 2,871.39, after falling to 2,862 earlier. Turnover declined to HK$919m from HK$1.06bn.

Hongkong Land, which reported net profits up 24 per cent last week, added 10 cents to HK$7.55. Playmates Holdings, the toy manufacturer, gained 35 cents to HK$3.70 after news last week of a huge rise in net profits from HK$18.2m to HK$166.7m on the success of its Teenage Mutant Ninja Turtles in the US.

TAIWAN slipped as pro-democracy protests continued. The Japanese market's fall contributed to cautious trading. The weighted index, which was almost unchanged on Saturday, shed 135.05 to 11,369.69 and volume fell to 787m valued at NT$114bn, from the previous session's 860m and NT$123bn.

World survives in Japanese shadow

MARKETS IN PERSPECTIVE

	% change in local currency †				% change sterling †	% change in US $ †
	1 Week	4 Weeks	1 Year	Start of 1990	Start of 1990	Start of 1990
Austria	+0.66	+6.90	+141.77	+54.14	+52.42	+55.56
Belgium	+0.34	+2.33	−1.88	−7.62	−7.28	−6.57
Denmark	+0.11	+3.61	+35.96	+5.48	+6.03	+6.82
Finland	−2.69	−3.47	−7.57	+5.67	+6.80	+6.69
France	+1.45	+5.27	+20.80	−3.14	−2.85	−2.18
W. Germany	+1.84	+0.67	+41.77	+6.58	+5.59	+6.39
Ireland	+2.62	−0.41	+18.16	+2.47	+2.08	+3.05
Italy	+1.37	−0.16	+8.44	−3.66	−3.70	−2.96
Netherlands	+2.09	+2.32	+8.84	−3.31	−3.91	−3.19
Norway	+0.19	+3.41	+39.19	+22.53	+22.13	+23.04
Spain	−2.26	−5.57	−7.20	−11.06	−11.39	−10.73
Sweden	−0.97	−2.21	+8.28	−8.17	−8.07	−7.38
Switzerland	−0.76	−3.42	+14.66	−3.30	−1.83	−1.09
UK	+1.28	−1.74	+6.12	−6.61	−6.61	−5.92
EUROPE	+1.10	−0.06	+13.82	−2.95	−2.95	−2.22
Australia	+0.22	−3.75	+9.361	−3.61	−8.65	−7.97
Hong Kong	−0.93	−2.35	−10.20	+1.24	+0.40	+1.15
Japan	−5.03	−12.90	−5.70	−18.80	−23.90	−23.33
Malaysia	−1.51	−3.63	+43.93	+3.12	+1.68	+2.43
New Zealand	+0.34	−2.64	−4.23	−9.42	−10.94	−10.28
Singapore	−1.10	−1.19	+26.49	+7.59	+8.33	+9.14
Canada	+0.63	+0.56	+4.95	−3.86	−6.31	−5.62
USA	+0.99	+2.58	+15.88	−3.46	−4.18	−3.46
Mexico	+0.51	+5.20	+172.94	+22.72	+24.12	+25.05
South Africa	+6.30	+8.36	+39.45	+14.81	−1.26	+2.01
WORLD INDEX	−1.25	−4.36	+6.18	−9.40	−12.08	−11.42

† Based on March 16 1990. Copyright, The Financial Times Limited, Goldman, Sachs & Co., and County NatWest Securities Limited.

By William Cochrane

GLOBAL equity markets were overshadowed but not routed by Japan last week. Tokyo's 5 per cent fall on the week left the FT-Actuaries World Index 1.25 per cent lower; excluding Japan, it would have been 1 per cent higher.

Tokyo is in a vicious circle. The trade-weighted value of the yen was down 6.5 per cent in the 12 weeks to last Friday; Japan's export surplus dropped 31 per cent in February and a Nikon Keizai Shimbun survey forecast a slowdown in corporate profits growth.

Apologists for equities say the market is falling in low volume, partly due to investment trusts and institutions closing their books this month.

However, the latest weekly review from Hoare Govett says Japanese companies are pulling their money out of tokkin and other investment trust funds; the brokers fear that redemptions will have further effect on demand for equities.

"The Tokyo stock market looks as though it might be on the brink of collapse, which would generate enormous capital glows out of Japan," Mr Robin Aspinall writes. "So you do not want to buy yen."

A solid week in Europe and a fat Friday on Wall Street stiffened the sinews of the world outside the Pacific Basin. London stopped worrying about political and economic prospects, and fastened on to a string of good corporate results; Paris found support from the strong bond market and positive economic outlook.

West Germany rose as conservative political prospects for last Sunday's East German elections improved; Amsterdam rose on firmer bonds and good company results.

The big rise of the week came in Johannesburg, where mining and investment tax changes in last Wednesday's budget were expected to boost share prices and improve market liquidity.

Futures players came into big index stocks last Thursday, seeing a chance to profit on the closure of the March all-share futures contract; on Friday, a higher bullion price allowed gold shares to top off the week.

FT-ACTUARIES WORLD INDICES

Jointly compiled by The Financial Times Limited, Goldman, Sachs & Co., and County NatWest/Wood Mackenzie in conjunction with the Institute of Actuaries and the Faculty of Actuaries

NATIONAL AND REGIONAL MARKETS	MONDAY MARCH 19 1990						FRIDAY MARCH 16 1990			DOLLAR INDEX		
Figures in parentheses show number of stocks per grouping	US Dollar Index	Day's Change %	Pound Sterling Index	Local Currency Index	Day's change % local currency	Gross Div. Yield	US Dollar Index	Pound Sterling Index	Local Currency Index	1989/90 High	1989/90 Low	Year ago (approx)
Australia (83)	140.61	+0.9	129.32	123.91	+0.9	5.57	139.31	127.14	122.82	160.41	128.28	138.13
Austria (19)	285.63	+2.1	262.70	249.67	+1.3	1.06	279.77	255.33	246.51	285.63	92.84	106.46
Belgium (61)	145.04	+0.4	133.39	125.18	−0.2	4.46	144.51	131.88	125.44	160.02	125.58	129.57
Canada (120)	143.55	−0.1	132.02	123.02	+0.2	3.26	143.63	131.09	122.73	154.17	124.67	133.60
Denmark (36)	260.61	+0.7	239.69	228.36	−0.1	1.40	258.73	236.13	228.64	260.82	165.35	167.77
Finland (26)	142.35	+0.2	130.92	119.39	−0.1	2.44	142.09	129.67	119.50	159.16	118.63	141.69
France (125)	151.99	−0.5	139.79	135.66	−1.1	2.79	152.71	139.37	137.14	157.97	112.57	113.51
West Germany (96)	135.17	+2.7	124.32	118.27	+2.0	1.80	131.61	120.11	115.94	137.01	79.56	82.55
Hong Kong (48)	118.10	−0.3	108.62	118.48	−0.3	5.02	118.48	108.13	118.82	140.33	86.41	128.62
Ireland (17)	188.43	+0.2	173.30	168.73	+0.0	2.49	188.13	171.69	168.73	198.57	125.00	142.28
Italy (96)	97.73	+1.7	89.89	90.82	+1.1	2.53	96.11	87.72	89.80	102.11	74.97	79.83
Japan (455)	144.47	−4.5	132.87	140.18	−3.8	0.58	151.34	138.12	145.70	200.11	144.47	183.32
Malaysia (36)	232.99	−0.7	214.28	244.25	−0.5	2.17	234.61	214.12	245.46	245.32	143.35	159.09
Mexico (13)	394.46	−3.1	362.79	1190.33	+1.3	0.44	406.99	371.43	1174.74	409.41	153.32	166.67
Netherland (43)	138.43	−0.6	127.32	119.76	−1.3	4.65	139.30	127.13	121.34	145.66	110.63	115.16
New Zealand (18)	64.47	−0.3	59.30	58.42	+0.1	6.07	64.68	59.03	58.37	88.18	61.96	69.12
Norway (24)	243.52	−1.0	223.97	216.42	−1.3	1.56	245.90	224.42	219.20	245.90	139.92	167.71
Singapore (26)	192.13	−0.7	176.70	165.63	−0.7	1.75	193.40	176.50	166.93	199.38	124.57	145.36
South Africa (60)	200.82	+0.2	184.70	176.65	+1.2	3.34	200.48	182.97	174.59	251.39	115.35	141.89
Spain (43)	146.06	+0.3	134.34	119.73	−0.4	4.40	145.58	132.86	120.21	169.75	143.14	145.91
Sweden (35)	176.56	−0.7	162.40	159.85	−1.1	2.46	177.87	162.33	161.67	206.85	138.45	156.36
Switzerland (62)	92.24	−0.9	84.83	86.26	−0.8	2.19	93.04	84.91	86.96	99.12	67.81	74.95
United Kingdom (307)	146.48	−1.9	134.72	134.72	−1.1	4.86	149.30	136.26	136.26	164.31	133.28	146.75
USA (541)	138.82	+0.5	127.68	138.82	+0.5	3.44	138.10	126.03	138.10	146.29	112.13	117.65
Europe (990)	138.91	−0.2	127.76	124.21	−0.3	3.51	139.21	127.05	124.56	146.66	112.63	117.13
Nordic (121)	190.87	−0.1	175.55	163.42	−0.7	1.91	191.07	174.38	164.53	201.89	137.95	147.58
Pacific Basin (666)	143.42	−4.2	131.91	138.73	−3.5	0.89	149.73	136.65	143.78	194.72	143.42	179.11
Euro – Pacific (1656)	141.95	−2.7	130.55	133.41	−2.3	1.93	145.83	133.09	136.50	174.18	141.56	164.34
North America (661)	139.01	+0.5	127.85	137.82	+0.5	3.43	138.33	126.25	137.12	146.66	112.79	118.50
Europe Ex. UK (683)	132.47	+0.8	121.83	117.37	+0.2	2.70	131.39	119.91	117.10	135.73	96.30	98.84
Pacific Ex. Japan (211)	130.21	+0.3	119.75	118.64	+0.3	4.94	129.85	118.51	118.29	140.05	111.93	128.69
World Ex. US (1849)	142.71	−2.5	131.26	133.84	−2.1	2.00	146.44	133.64	136.75	173.77	141.49	153.50
World Ex. UK (2083)	139.65	−1.5	128.44	135.46	−1.2	2.25	141.73	129.35	137.18	162.00	136.96	138.93
World Ex. So. Af. (2330)	139.87	−1.5	128.64	135.07	−1.3	2.48	142.03	129.63	136.78	161.84	136.67	139.60
World Ex. Japan (1935)	139.47	+0.2	128.29	133.01	+0.2	3.52	139.19	127.03	132.74	145.52	114.51	118.69
The World Index (2390)	140.24	−1.5	128.98	135.35	−1.2	2.49	142.39	129.95	137.04	162.05	136.68	139.61

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Constituent change 19/3/90: Addition: Courtaulds Textiles (UK)
Irish market closed on March 19.

SECTION III

FINANCIAL TIMES

SURVEY

European companies in high technology sectors are forming links with US and Japanese groups to develop wider international strategies. **Charles Leadbeater** looks at the implications for the various sectors as groups widen their horizons at different speeds

The controversial European Fighter Aircraft programme: the £8bn cost is justified by national criteria

EUROPEAN HIGH TECHNOLOGY

Time to look beyond the EC

THE ANNOUNCEMENT that Daimler-Benz, the West German aerospace and engineering group was involved in co-operation talks with Mitsubishi, the Japanese cars and electronics group, may be a sign of things to come for Europe's high technology industries.

It comes hard on the heels of an agreement between IBM, the computer manufacturer and Siemens, the West German engineering and computer group, to collaborate in developing the next generation of semi-conductors.

The message of both agreements is that the future of Europe's high technology industries will not be decided by European companies alone. To pursue viable European strategies companies in high technology sectors will have to develop wider international strategies which stretch beyond the Community.

Europe's horizons have been widened most dramatically by the unfolding political and economic reforms in eastern Europe. But relations with the US and Japan are more significant industrially.

Four issues will be central to how Europe's high technology industries develop in the next few years:

■ Market deregulation and industrial restructuring is proceeding at different paces in different sectors.

In consumer electronics Europe has only three large players, Philips of the Netherlands, Thomson, the French state-owned conglomerate and Nokia, the Finnish company.

This sort of concentration is widely predicted as the future for other industries such as defence and aerospace.

The European computer industry is at the early stages of a restructuring which could lead to a similar cross border consolidation. In pharmaceuticals and telecommunications the process of liberalisation and restructuring is just getting under way.

■ This trend towards consolidation raises important questions about economic efficiency and managerial competence.

Is cross border collaboration and concentration the foundation for innovation and competitiveness or an anti-competitive obstacle to it?

Can these cross border conglomerates be effectively managed as coherent companies or are they simply a way to carve up markets?

■ Liberalisation within the EC is meant to create a more open, competitive market. But growing industrial concentration will undercut this goal.

As European industrial consolidation rolls on, competition policy will become inseparable from trade policy. To maintain competitive conditions European conglomerates will have to be opened to competition from the US and Asia Pacific.

■ The opening of the eastern European economies may in time alter the international division of labour.

What will become of the electronics and computer industries in eastern Europe as currencies become convertible allowing profits to be repatriated, property laws are changed to allow full foreign ownership and consumers are allowed access to foreign goods?

Eastern Europe may offer an attractive location for assembly plants. But cheap labour is not their only attraction. Their economies are inhabited by frustrated engineers and software programmers with skills to match their Western counterparts.

As yet the safest prediction is that economic and political reform will proceed at different paces in countries with different economic strengths. In the long run it could force west European countries to reassess the basis for their comparative advantage and their attractions to inward investment.

Two high technology industries — aerospace and consumer electronics — exemplify the dilemmas which will face European companies and policy makers in the next few years.

European collaboration in aerospace has a long history, stretching from the Tornado programme, through Airbus Industries to the controversial European Fighter Aircraft programme. In spite of the development of more sophisticated management structures for European programmes national interests still predominate.

Thus the £8bn cost of the EFA programme is justified primarily by national rather than European criteria. If each of the four nations involved, West Germany, the UK, Spain and Italy developed their own fighter it would cost them £4bn each. So it is much more rational for governments and aerospace companies to collaborate. That way each government pays around £1.5bn to develop the new plane.

But for the taxpayers of the four nations as a whole it would make more sense if they bought the aircraft from one country at an overall cost of £4bn and a cost to each nation of £1bn.

It seems then that collaboration, sponsored by significant state funding, is a way to keep four European aerospace companies in business when there may only be enough work for one or two.

It is not as simple as that. The governmental backing for Airbus Industrie for example might be justified on the grounds that without it the world would be at the mercy of just one airliner manufacturer, Boeing.

Moreover collaboration has had significant spin-offs, according to the participants. Casa, the Spanish group argues that the EFA programme has helped to develop indigenous engineering and electronics companies which will live well beyond the life of the programme.

Whether or not collaboration and state aid are justified, the industry has reached a turning point.

The collaborative phase of the industry's development is almost certain to be superseded by a phase of consolidation. The emergence of less than a handful of large groups dominating aerospace and thus much of defence will provoke controversy over who will win and lose from restructuring.

Consolidation will merely create new dilemmas as consumer electronics shows. The west European industry is dominated by two companies, Phillips and Thomson. The danger is that Europe becomes so reliant on the prospects of two companies that they become European champions, capable of demanding special protection.

Both companies face considerable uncertainty over the market for costly new products such as high definition television and audio-visual compact discs.

The benefits of the protection European industry demands are dubious. Protection in new product areas seems to encourage companies to play second fiddle, waiting for the Japanese to innovate but then clamping anti-dumping restrictions on them once European companies start manufacturing.

Protection not only allows European companies to tolerate higher production costs but also sanctions a slower rate of product development in industries where there is a substantial advantage in being first with a new product.

Beneath this overarching debate about consolidation, competition and trade policy five other themes run through Europe's high technology industries.

■ Although the scope for purely national policies is limited it has not disappeared. In particular, national policies on education and training, and links between universities and industry will be of central importance as the knowledge content of production rises. National governments will be closely involved in defence and pharmaceuticals as large customers.

■ Uncertainty over the pace and direction of product development is driving companies to reduce risks. It is far from certain that HDTV and biotechnology will produce new stages of development in the consumer electronics and pharmaceuticals industries.

Political uncertainty hangs over defence related sectors and environmental pressure over the chemicals industry.

While the pace of product development may slow in defence aerospace, it is quickening in other sectors such as computers. As Nixdorf and Olivetti show it is very easy for a computer manufacturer to catch a heavy cold if they choose the wrong path of technological development. But technological capacity is not enough.

■ Across a variety of sectors technology is becoming more customised. Technological power and sophistication has to be combined with more attention to customer needs to create a successful product.

For example, in chemicals and plastics companies are increasingly targetting speciality products which are sold in terms of what they do for their customes.

Computer manufacturers are increasingly presenting themselves as systems integrators and solvers of computing problems rather than as hardware manufacturers.

With liberalisation and the growth of personal communications telecom companies will have to provide customers with a more differentiated range of services.

■ As a product development becomes more important so standard setting becomes more cental to determining competitive advantage.

The international battle over HDTV resolves around standards for its format. With the move to Open System Interconnection in computing, which allows machines made by different manufacturers to be linked up, it becomes more difficult for large companies to protect their position through controlling a proprietary technology.

Standard setting to protect market position can become the substitute.

■ Technology is becoming more integrated and complex.

This convergence and integration is partly technologically driven and partly commercial.

Aerospace manufacturers will have to gain access to a range of new technologies, sophisticated microelectronics, computers and new materials developed by chemical companies.

Microelectronic computer controlled systems will become increasingly important in cars, vans and trucks. Points of contact are expanding between computers, telecommunications and consumer durables, with software weaving them all together.

As defence spending falls defence companies will have to develop stronger civil commercial activities to fill in the gaps between less frequent, smaller defence contracts. Even within defence demand will shift to more sophisticated, flexible weapons, which utilise the latest advances in software, optical displays, and microelectronics.

However, the failure of computer companies such as IBM to break into telecommunications and telecommunications companies to break into computing suggests this technological convergence may not be best achieved through single companies but networks of companies.

Those networks will have to extend well beyond Europe. To rise to the challenges facing them Europe's high technology industries will have to be committed to both collaboration and competition with their US and Japanese rivals.

CONTENTS

Editorial production: Phillip Halliday

Alain Gomez, head of Thomson: taking on the Japanese by forming an HDTV alliance in the US

Consumer electronics and the fight for high definition television

Standards mark lines of battle

MR ALAIN GOMEZ, chairman of Thomson, the French state owned electronics and defence company, has said that Japan thinks high definition television will be the Waterloo for the West's electronics' companies. Instead, he intends HDTV to be an Austerlitz.

Thomson and Philips, the Dutch electronics company, both believe that HDTV will be crucial to Europe's technological future. High definition sets will consume large quantities of semiconductors. They are expected to have applications, such as in personal computers and in defence technologies.

The battle over HDTV boils down to a battle over standards, in particular the number of lines that high definition sets will have on their screens. The number proposed by the Japanese mean that HDTV would not be compatible with existing sets.

The battle over high definition television comes in the face of relatively slow growth in the developed world's consumer electronics market.

Mr Mike Brewerton of BIS Mackintosh says that he expects total sales in Europe to increase by just 5.6 per cent this year to $41.4bn. He expects to see similar levels of growth in Japan and the US.

BIS Mackintosh says that growth in Japan will be 5.3 per cent this year, bringing consumer electronics sales to $26bn. In the US sales are expected to rise by 6.5 per cent to $26.3bn. Mr Brewerton says most of consumer electronics markets are "pretty well saturated, in the developed world, market penetration is close to 100 per cent. In Japan, the US and most of Europe it's a replacement market."

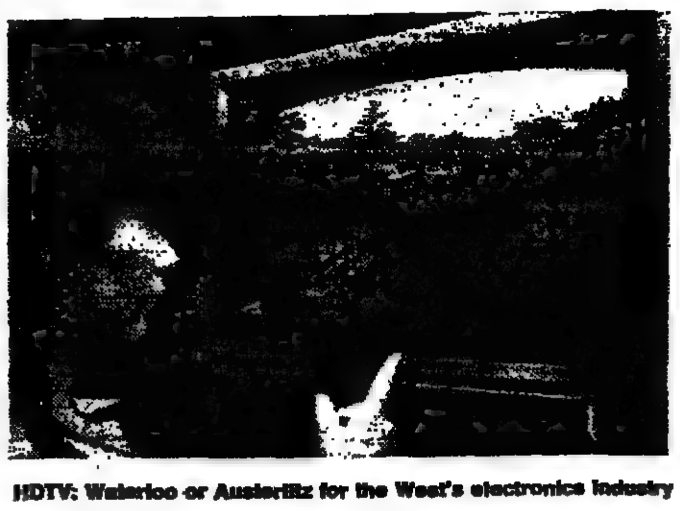
Although some regard eastern Europe as a future area of growth for consumer electronics companies, Mr Brewerton points out that eastern European countries are likely for some time to be constrained by a shortage of hard cash.

Mr Jonathan Drazin, of Dataquest, says it is very difficult for western consumer electronics companies to come up with new products capable of expanding the total market.

"The question we have to ask in consumer markets, is whether a product is going to change people's lifestyles," he says, "if not it's going to have a hard battle. The Sony Walkman was an example of a product which did change people's lifestyles. Cordless telephones might be another one."

So will high definition television be an example of a consumer product which will change peoples lifestyles? Is it likely to make sufficient impact to expand the European consumer electronics market in any significant way?

Mr Drazin believes that by 2000, 10 per cent of those purchasing a television will buy a HDTV. This is likely to result in the sale of 1.8m sets. Mr Drazin believes that other purchasers will buy intermediate sets, offering improvements over existing sets but still falling short of full HDTV standards.



HDTV: Waterloo or Austerlitz for the West's electronics industry

Among the improvements on offer will be wider screens and slightly improved resolution. Although high definition sets will use far more semi-conductors than existing sets, Mr Drazin believes that by the turn of the century less than 1 per cent of semiconductors used in Europe will go into HDTVs.

Thomson and Philips believe HDTV will be crucial to Europe's technological future

Nevertheless, he does believe that HDTV will produce spin-offs by the turn of the century. He points that the automotive industry is using HDTV for design purposes.

Philips and Thomson have made progress in attempting to impose their standard in the US. They have unveiled a co-operation accord with National Broadcasting Corporation (NBC) of the US to work together on a common standard.

Thomson owns RCA in the US and holds 22 per cent of the American television market. The three partners in the consortium control 33 per cent of the US television market. Such an HDTV alliance is good news for the US electronics industry, particularly as the Bush administration appears to be backing away from government support for High Definition Television research.

The Federal Communications Commission has announced that it will decide on a transmission system for HDTV by 1991.

It has said that the new system must be compatible with the existing American standard. This would exclude the Japanese HDTV system as it would require television set owners to buy new sets, rather than allowing them to continue using their existing sets.

Michael Skapinker

Don Kirk reports on links between companies and universities in West Germany

Student overcrowding stifles research

IN THE nineties, universities in West Germany hope to profit from a dramatic increase of research in high tech areas such as artificial intelligence and ceramics. A lot will have to change if they do.

Plagued by extreme student overcrowding and lack of funds, universities have seen more and more technology related research move outside their walls. A few universities have been able to keep high-tech at home. In those cases, close co-operation with industry and government funding has been essential.

In Baden-Württemberg, a region known for technology investment, a number of universities have promoted high tech programs. Computer and mirco-technology at the universities of Karlsruhe and Stuttgart focus on CAD/CAM systems, robotics, micro and opto-electronics.

The university of Heidelberg has one of the country's five genetic engineering centres. In each case co-operation between university and industry is close.

High tech research has effectively changed the structure of many universities. In Baden-Württemberg, co-operation with industry is co-ordinated through associated institutes at campus.

Examples of of these "an" institutes include a micro-electronics institute in Stuttgart, the Research Centre of Computer Science in Karlsruhe and Institute for Laser Technology in Medicine at the University of Ulm.

"An" institutes have become a model for the effective tapping of intellectual resource and a way to successfully manage technological transfer. To facilitate co-operation, Baden-Württemberg built a referral network for technological transfer at the universities, technical colleges and industry.

Universities regard co-operation with state and other research institutions as an important source of stimulation. Several institutes co-operate closely with the Nuclear Research Centre Karlsruhe. Close connections exist with regional institutions such as the institutes of the Fraunhofer Association, the State Agency of Environmental Protection and the Technology Centre Karlsruhe.

Similar projects in other regions include the Walter-Schottky Institute in Munich – which co-ordinates chip technology projects with Technical University of Munich and Siemens, the West German electronics company. An agreement between Siemens and the University of Erlangen has established a project called PAP (Projekts Automatisierte Produtionssysteme) to develop miro-systems.

In addition, the Bavarian regional government is planning what it considers an exemplarily model of co-operation at the Forschungszentrum fur Wissensbassierte Systeme. The regional government expects a synergy effect in co-operation with universities in Erlangen-Nurnberg, Tu Munich, and the University of Passau.

Project mangement at the "an" institutes has proven an effective way of co-ordinating short-term co-operation between the university, engineering facilities and industry. One Berlin project called BERKOM (Berliner Kommunikationssystem) developed a multi-functional wide-band communications system as the basis for a high-speed data network.

Berlin universities were the first to make research results more readily available to industry. West Germany's first information system between the TU Berlin and national companies shortened the period of time between a discovery and its application. Industrial laboratories (micro-electronics, electro technology, physics, chemistry and pharmaceuticals) often supply the impetus.

The importance West Germany placed on university research is reflected by government funding. Most university projects are sponsored by the Federal Government, State Government and industry with about one quarter of the budget coming from institutions other than the Government or contract research. On total, government spending for research and development amounts to DM20bn a year with universities getting DM6.7bn.

West German universities are supported by research funding from the Federal Research Ministry. Special projects which focus on the environment, climate research, micro-electronics, biotechnology, materials research and a number areas related to health have gained support by the Federal Research Ministry.

A large portion of research funding comes through the German Research Institute (DFG).

Since the 1970s the percentage of West Germany's public funding for research at universities has dropped consistently. In the last few years the amount which industry pays for university research institutes has grown but so have the number of non-university research institutes.

The tide of student protests and strikes last year were a painful contrast to structural changes reflected by West German "an" institutes. The strain on the universities and colleges from overcrowding is enormous. Universities have room for 780,000 regular students against 1.47m matriculated students.

At the same time faculty numbers have slackened. Only ten years ago, there was one teacher for every student at the university level and one to 18 at technical colleges. That number dropped to 1:18 and 1:29, respectively, by 1985.

The result for research is catastrophic. Libraries do not have enough books, there is not enough room for the the students to sit and lectures are transmitted via video to adjoining rooms.

While a high standard of research still supports teaching at university, its importance is dwindling as a result.

Last year, state and national governments in West Germany established a DM2bn emergency fund for universities. Better facilities and more teachers are expected to help.

The cost of doing "big science" has taken research away from the universities. But they insist important niches remain, particularly in the areas of software development, basic research and environment technologies.

The message of the nineties is co-operation. If West Germany universities hope to be more than educators national research institutes such as the Fraunhofer and Max-Planck-Institutes are stressing high tech and co-operation with Industry. Competition for government funding of projects demands the same of universities.

The frontiers of high technology production

Japan shows the way

COMPETING successfully with Japanese manufacturers has rarely been a matter simply of adopting their production technology.

For example, some of the images we have of Japanese factories are largely myth. Professor Yuji Furukawa of Tokyo University says: "Most Japanese companies are not willing to introduce a complete unmanned factory. The proper mixture of persons with machines may bring us more added value."

So far, European and US manufacturers have reaped greater benefits from the logic, neatness and order of such Japanese techniques as just-in-time production, total quality management, the elimination of waste and so on than from the huge spending that technology often implies.

But this is about to change. The reason is the new Japanese commitment to technology, especially computer integrated manufacturing (CIM).

CIM is one of the most often wrongly applied acronyms in the manufacturing alphabet. In the past, CIM meant buying new applications software for each manufacturing function and new boxes for the applications to run on. The theory was that lashing all the boxes together would allow the functions to use common files. The weakness of CIM defined this way is that all the boxes had to come from the same supplier. Worse, if any of the applications software came from someone else, out it went as incompatible. IBM was the largest of many suppliers of such systems to discover that the users were not interested.

In the last year or so, however, the international standards movement and chip technology have conspired to make CIM both accessible and worthwhile. IBM's launch of its multi-vendor CIM Architecture is just the largest of many signs to reinforce the message that integration can be achieved gradually by building on what you already have.

Mr Furukawa says Japanese companies will integrate rapidly over the next five years. They are particularly keen to link their design, manufacturing and sales systems. Why?

A survey last year showed that Japanese companies have managed to reduce labour costs to 3 to 5 per cent of production across industry, from the making of domestic electrical appliances to internal combustion engines.

Indirect costs, however, are 8 per cent or more. Mr Furukawa says automating the overhead functions in a company through the provision of a central database reduces costs. More important, linking product information to the design and manufacturing activities in a company provides rapid feedback about overseas markets to the design department. Mr Furukawa says such systems are more akin to office automation than CIM. But adds: "Several examples now exist in Japan."

There will be many more. Japan's Ministry of International Trade and Industry is running a $1bn, 10-year programme to start development of world-standard CIM systems. Miti and its collaborators hope these will be developed by Japanese, US and European governments, industries and academia.

CIM is one of the most wrongly applied acronyms in manufacturing

The Japanese recognise that standards are the key to integration. The adoption of standard operating and communications systems allows the interconnection of a multitude of computer-based systems that would otherwise be incompatible. Japan has built the world's largest and most comprehensive centre for testing factory communications systems to conform to international Open Systems Interconnection (OSI) standards.

Europe has led in important aspects of CIM standardisation. Two projects under the EC-funded Esprit programme are establishing standards in CIM architectures and communications. Ten European companies have got together in an Esprit project to develop generic manufacturing planning and control systems software. A group at Polytechnic South West in Plymouth has developed a unifying computer aided production management system, Stratagem, which is a marketable product.

Providing standards-based systems is only part of the battle. The supplier of, say, the best paint shop technology is unlikely to be the supplier of the best data-collection systems. But you need to know how many red cars you are making each hour and, more important, what faults they are showing.

This may mean collecting data from the paint shop and the inspection process and presenting it to a supervisory system for analysis. Is the supplier of the supervisory system, the inspection system or the paint-shop system responsible for this? If the systems cannot be made to work together, who puts them right? Who pays?

Internal integration is only one issue. The adoption of just-in-time deliveries of components and finished goods has made it equally vital to integrate the supply chain and the customer. JIT supplants weekly deliveries of 1,000 components with five daily lots of 200 to the line. This multiplies the number of despatch notes and invoices by five times. Better to cut out the paper and send delivery and other data by computer over electronic data interchange (EDI) links.

There are those who say CIM is not really about computerisation.

Mr Tracy O' Rourke chief operating officer of Rockwell in the US, elevates CIM to a business philosophy: "Hanging a bunch of computers on there is not going to change anything." He says companies adopting CIM have to change the way they think about responsiveness, flexibility and delivery times, if they are to be successful.

Mr Furukawa is sure that: "Human ideas and capability can add more value in the individualised and customised market of the 21st century than unmanned factories."

This means 19th century attitudes to the labour force have to be rethought. There are signs of this happening. Jaguar, Rover and IBM for example are struggling towards Mr Furukawa's proper mixture of people and machines in team working programmes.

Perhaps CIM stands for Co-operation in Manufacturing.

John Dwyer

The author is editor of Advanced Manufacturing, the Financial Times newsletter

Charles Leadbeater on government contributions

Still room for the state

THE 1980s were the era of state disengagement from industrial affairs. Will the coming decade witness the evolution of a new consensus about the role and limits of industrial policy?

There are wide differences in the instruments European governments use to support and influence industrial development in high technology.

In West Germany 58 per cent of state support for manufacturing comes in tax concessions, with 35 per cent in grants and 6 per cent in soft loans.

The UK provides 69 per cent of its support through direct grants, only 4 per cent through tax concessions and 6 per cent through soft loans. In France, the soft loans take the largest share of support measures, accounting for 38 per cent, with 26 per cent through equity participation and 11 per cent through tax concessions.

In spite of these differences and the diversity of institutions through which government aid is channelled several common themes have begun to emerge in European approaches.

According to a recent OECD report subsidies to manufacturing industries have been cut in most countries. In the UK support to manufacturing has fell from 5.2 per cent of the sector's gross domestic product in 1981 to 2.6 per cent in 1986.

In West Germany and France the reductions have been less marked. Running counter to the trend, government support for industry has risen sharply in Italy, from about 12 per cent of manufacturing GDP in 1981 to 16.8 per cent in 1986, Greece, from 16 per cent to 17.7 per cent with a marginal rise in Ireland.

Government's remain heavily involved in research and development. The West German, French and British governments in 1985 financed 62 per cent of research and development in the aerospace sector. In electrical and electronic industries, the UK and French government sponsored about 30 per cent of research and development.

The OECD's 1989 review of industrial policy in OECD countries notes an emerging consensus over their concerns and the actions they deem necessary. It says: "An international consensus is gradually emerging on a few central ideas inspired by a shared interpretation of the conditions necessary to generate and commercialise new technologies."

The most important change is the acceptance that industrial policy has to have an international orientation. The report says: "Firms are finding it increasingly harder to find, within either their own organisations or their own national context the material and intangible resources they need to be competitive in increasingly international markets." Thus a vital part of any national industrial policy must be to promote the participation of companies in world markets and international networks.

There is a widespread acceptance that it is not the state's role, through selective aid programmes, to take over from companies the task of identifying growth opportunities. But the verdict of the market can only be accepted as a basic reference point for innovation policies if it guarantees fair competition. Trade policy is a vital ingredient of market-based industrial policies.

Helsinki: the heart of Finland's job creation

European collaborative programmes are taking on a more significant role, partly to fund research and development, but also to bring large companies together as a precursor for commercial collaboration.

According to a recent book on Europe's high technology industries the various programmes such as ESPRIT and RACE promoted by the European Community fulfill a number of functions.

They have an indicative planning role similar to the programmes sponsored by the Ministry of International Trade and Industry in Japan. The EC programmes pull together top European companies in an attempt to generate a shared vision of their position within world markets.

They provide a stepping stone towards restructuring markets. Where markets are still dominated by national champion fiefdoms, collaboration between companies can provide a half way house towards open competition. They have an important role in establishing common standards and sharing expertise in uncertain markets.

However, national policies still count. To realise their potential, companies need access within their immediate environment to a developed business infrastructure of suppliers and skilled labour. National and local education and training policies are becoming more significant in determining an area's position within the international division of labour. One symptom of this is the widespread drive to establish closer links between higher education and industry.

One of the main forces driving this new policy is that high technology industries are becoming increasingly dependent on intangible assets, such as software, research and development and skilled work.

There are three main doubts about the efficacy and durability of this new approach to industrial policy.

Firstly, one of the traditional aims of industrial policy in the 1970s was to overcome regional disparities in economic performance. In the late 1980s, regional disparities seem to have widened.

In the last few years the number of authorisations for office buildings in the Paris region was five times greater than in the rest of the country. By the end of the decade, 80 per cent of the new service sector jobs will be within the Paris region. In Finland, 75 per cent of the jobs created in the last two years have been in the Helsinki area. In Switzerland, regional disparities in unemployment rates have reached the levels of 30 years ago.

The factors affecting regional development have altered considerably in the last few years. The basis for regional comparative advantage in the search for investment has shifted. International companies are seeking regions with an infrastructure and business environment which will enable speedy adaptation to changing markets – qualified manpower, developed business services, high quality sub-contractors and a social infrastructure and living environment which will help to retain important staff.

Thus regional economic policies have to be about much more than providing cheap office and factory space. the task of overcoming regional disparities has become harder.

Second, industrial policies will have to accommodate new demands in the next decade, particularly over environmental pollution. This is unlikely to affect significantly some industries such as telecommunications and software. However, it will exert a powerful influence over the development of some industries such as chemicals, pharmaceuticals, biotechnology, aerospace and the motor industry.

Third, the disengagement of the state from industrial policy has been far from complete. It has also coincided with a period of steady world growth. If growth slows significantly policy could drift back towards more state support for troubled sectors in the form of protectionism.

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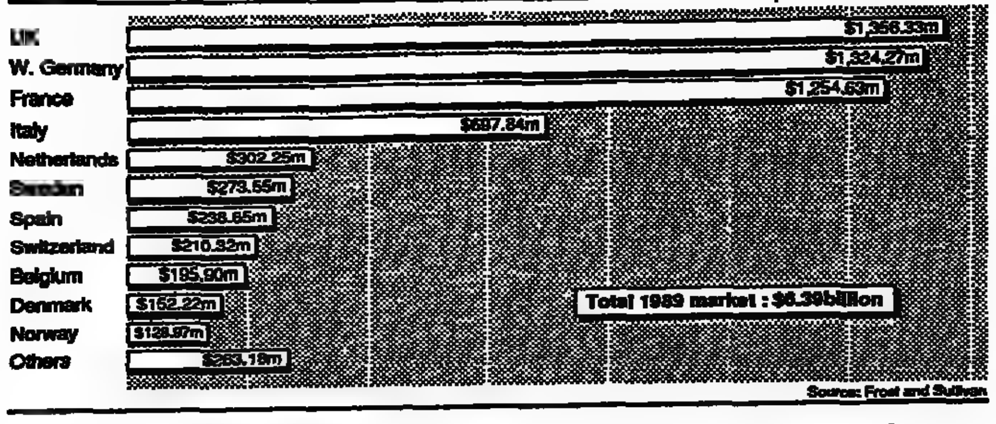
European computer terminal market shipments

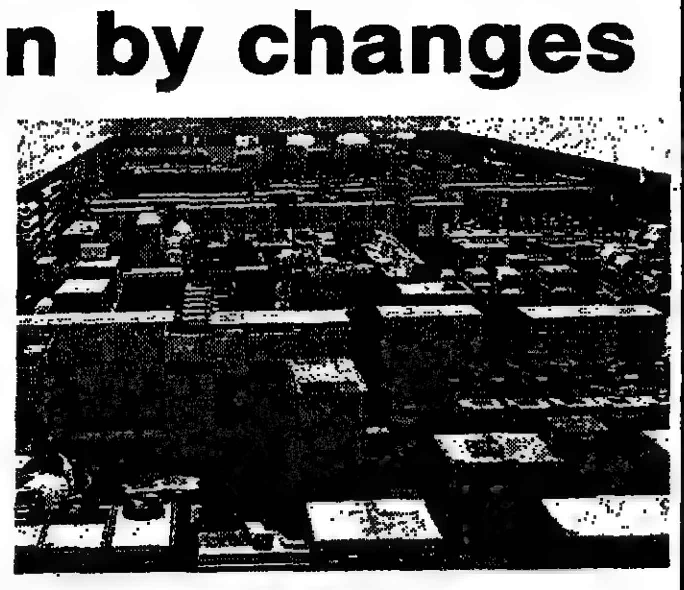


Alan Cane examines computer prospects

Shaken by changes

THE DECLINE in the fortunes of Norsk Data of Norway and Nixdorf of West Germany and poor results from Groupe Bull of France and Olivetti of Italy are grim evidence that European-based companies are as susceptible to the changes shaking the worldwide computer industry as their US competitors.

The European computer market is still growing strongly compared to the US but the landscape is changing irrevocably. Two months ago, Nixdorf, once a shining example of West German entrepreneurial zeal, gave up trying to remain independent after two years of heavy losses and was acquired by its larger compatriot, Siemens.



ICL's computer hall at Bracknell

The result is Siemens-*Nixdorf Information Systems*, second in Europe to US-based International Business Machines, the world's largest computer manufacturer.

Olivetti, at one time seemed the only European company with truly international potential through its innovative minicomputer and personal computer strategies, declared a 40 per cent decline in first-half pre-tax profits to $72m with sharply lower earnings expected for the year.

The company, under the direction of Mr Vittorio Cassoni who recently returned from a secondment running AT&T's US computer operations, has undergone a corporate facelift. Three divisions, one dealing with office systems one with business computer systems and a third handling software and services have been established. Analysts are hopeful that the company's performance will show substantial improvement in the current year.

Norsk Data, another star performer fallen on hard times, reported a full year operating loss of some £32.8m. The company has instituted a strict cost-cutting regime and second half losses were less than in the first half.

Mr Erik Engebretsen, ND chief executive, who took over from Mr Rolf Skar the founder, said he believed the company had turned the corner in the second half of 1989. Analysts were less convinced and are waiting to see how effective ND's new strategy of systems integrator rather than manufacturer will prove.

Groupe Bull last month *reported a net loss of FFr267m* for 1989 compared with a pre-tax profit of FFr303m the year before. It had unexpected manufacturing problems and took a *FFr405m provision for restructuring*.

During the year, the company acquired the personal computer division of the US-based electronics manufacturer Zenith, giving it a new strength in workstations and a more comprehensive geographic distribution. With the Zenith unit, the US represents some 30 per cent of Bull sales compared to only 16 per cent without.

International Computers (ICL), the UK's largest computer manufacturer which is now a subsidiary of the telecommunications group STC, provided some cheer in an otherwise dismal year for European computing. Its revenues grew to £1.6bn with over £1bn of that coming, for the first time, from the UK. With profits of £145.7m, it is one of the world's more profitable computer companies, a tribute to its strategy of concentrating on niche markets such as retail which use medium computers linked together in standard networks.

There has been intense speculation, however, that STC might sell ICL or seek a partner for it to help defray the huge research and development costs which any company which expects to remain at the leading edge has to bear. Sun Microsystems of the US, Olivetti of Italy and Fujitsu of Japan have all been linked with ICL.

Mr Arthur Walsh, STC chairman, has made no secret that ICL is in talks with potential partners, but no front runner has yet emerged. Last year, STC raised its investment in research and development by 28 per cent to £271m.

Last year was a poor year for almost all the world's computer manufacturers; IBM saw its profits sharply reduced; Unisys and Digital also suffered.

There are a number of reasons. Chief amongst them are a move among customers away from large, expensive machines – especially minicomputers – towards smaller, lower cost computers which can tackle the same jobs.

There is some pressure, especially from governments, *towards systems which use the* standard operating system Unix, developed originally by AT&T. Failure to move quickly enough to Unix based systems hurt a number of European players including Norsk Data and ITL, a small UK manufacturer, acquired by the UK workstation specialist Apricot.

Against this background, the next two years will clearly be a period of profound challenge for Europe's indigenous manufacturers.

- US and Japanese computer companies are aggressively seeking market share in Europe. Japan is now, for the first time, competing effectively in most areas where there is growth, especially high end mainframes and high powered workstations.
- The advent of the single market after 1992 presents a new challenge for companies used to selling almost entirely locally. Siemens, for example, the largest and potentially most effective of European computer manufacturers, is still heavily dependent on its West German market. The US and Japanese companies are used to selling internationally.
- The newly available markets of eastern Europe represent a substantial opportunity for all information technology companies but raise important question of operation and finance.

The relaxation of Cocom rules relating to the level of high technology equipment which can be exported to eastern Europe now seems certain – if only because the inflexible bureaucracies of the east will need a measure of automation to work effectively with western governments. Groupe Bull is setting up a joint holding company with the Hungarian electronics group Videoton. ICL has signed orders for systems for banks in Poland and for Leningrad city council.

There is a further, fundamental difficulty and that is the level of sophistication to be found in the industry's customers.

The slow-down in the US is believed to be due at least in part to an unwillingness on the part of customers to invest further in data processing equipment *without better ways of* measuring the benefits.

As a recent Confederation of British Industry study shows, there are differences between countries. The French look for improved customer service, the West Germans, staff productivity, the British, managerial effectiveness, the Italians, office automation. The industry has a long way to go in understanding its customers, but therein lies the key to renewed growth.

Software is increasingly important to the computer industry, says **Alan Cane**

Powerful chips raise the stakes

THE SOFTWARE and services sector has become the new dynamic for growth in the European computer industry. Hardware, physical computer systems, is rapidly becoming a commodity as every more powerful silicon chips push down price and raise performance.

The services sector has grown in importance. Most analysts believe that software and services growth rates in most European countries are at least double those of hardware.

Merrill Lynch, the securities company, for example, estimates that the compound average growth rate for Europe between 1988 and 1992 will be 20 per cent. Merrill Lynch says: "We predict that by 1992, the hardware/software ratio in Europe will have inverted, moving from 60:40 in 1988 to 40:60 in 1992."

The consequence is that hardware companies are trying to protect revenues and profits by *shifting an increasing* proportion of their effort into services. International Computers (ICL), for example, the information technology arm of UK-*based STC, derives 47 per cent of its revenues from software* and services while only a few years ago, it was essentially a hardware company.

Existing services companies have to defend their market share against encroachment from the hardware makers. Some are pursuing policies of merger and acquisition to achieve critical mass and economies of scale.

The European computing services market place, valued at $20bn is highly fragmented with no single company claiming more than a 5 per cent market share.

Computing services is a catch-all expression for a range of activities, all quite different from one another, with only computer systems as their common element. It includes tailored and packaged software, consultancy, facilities management, bureaux services, recruitment, leasing and finance, disaster recovery and maintenance. These are essential to the development of effective information technology systems.

The aim for many of the larger companies such as Cap *Gemini Sogeti (CGS) of France*, SD-Scicon of the UK or Volmac of the Netherlands is to gain recognition as a systems integrator, putting together software *and hardware systems* from a variety of suppliers.

Prerequisites for prime contractor status include a proven track record in large project management, financial stability and size. CGS, for example, the leading European computing services company is aiming for 3 per cent of the $40bn world market by 1992.

It has 10 per cent of the French market, 5 per cent of the European market and 1 per cent of the US market. It has grown historically at about 25 per cent a year.

There is a broad consensus that during the 1990s, the number of computing services companies in Europe that could reasonably claim to be systems integrators will shrink through mergers and acquisitions.

European computing services companies, with the exception of CGS, are small compared with US companies such as Electronic Data Services (EDS) with an estimated 1989 turnover of $5.4bn, Automatic Data Processing (ADP) with $1.7bn and Computer Sciences Corporation's $1.5bn.

There are no European competitors for the large US packaged *software companies* such as Microsoft which turned over about $770m in 1989.

Two broad themes are running through developments in *the European industry. First*, the move to common industry standards, represented by Open Systems Interconnection (OSI) which makes it possible to connect computers of different manufacture and the Unix system which makes it possible to run the same software on different makes of computer.

European computer companies have been very much in the van of the move to common industry standards, seeing them as a way out of the domination by US manufacturers with proprietary products.

The move has been driven to a large extent by governments and by the European Commission which, have been among the first to object to the costs involved in machine and software incompatibility.

As the bandwagon has gathered pace, so the large US companies have come back into the reckoning. X-Open, a leading international organisation dedicated to the promotion of open standards, has its origins in Europe, its president, Mr Geoffrey Morris was formely with ICL. But the campaign to establish Unix as the standard operating system for small and *medium-sized computers* has degenerated into a battle between two US-led camps, Unix International supporting the latest version of AT&T's *Unix and the Open Software* Foundation, a development organisation which backs Aix, International Business Machine's version of Unix.

The best hope for European software manufacturers, seemingly forced to choose between the two standards, is that agreement can be reached on an interface – a set of connection rules – called Posix which fits between the operating system and an application program.

An equally sharp row has developed in the past few months over a draft EC directive designed to protect software copyright. Nobody is against the prevention of software piracy which is costing software producers many millions of dollars every year. The question is where to draw the line.

The Brussels directive includes software interfaces and so would allow manufacturers to control the rules for the connection of other software *to their systems*.

The European Committee for Interoperable Systems, which includes Bull, Olivetti and Amstrad argues without the *right to analyse or "reverse engineer"* interfaces, large companies such as IBM and Digital Equipment will be given a substantial competitive advantage.

The Software Action Group for Europe is equally adamant that without adequate legal protection, software developers will remain at risk.

Michael Skapinker on the battle for the semiconductor market

Testing the co-operation water

THE NEW decade has already seen several skirmishes, alliances, and strategic retreats in Europe's increasingly desperate battle to retain a foothold in the production of computer chips.

In January, Siemens of West Germany and International Business Machines of the US announced that they would work together on the development of 64 megabit memory chips, which will hold 64 times as much data as those most commonly used today.

The agreement is significant for the way in which it links a large European company with a large American one. European and US semiconductor manufacturers have in the past found it difficult to unite to resist threat from the overwhelmingly dominant Japanese semi-conductor producers. Western Europe and the US each have an industry consortium designed to preserve some role for themselves in the manufacture *of* computer chips.

Sematech, the US semiconductor industry consortium, and the Joint European Submi-*cron Silicon (Jessi) project* have refused to co-operate with one another.

The European consortium had rejected attempts by IBM and other American companies to become members of Jessi on the grounds that European companies which manufacture in the US had not been accepted as members of Sematech. The board of Jessi has, however, invited IBM to put forward proposals for co-operation.

By deciding to focus on the development of the 64 megabit dynamic random access memory (D-Ram) chips, IBM and Siemens are attempting to ensure that they have a place in the semiconductor market of the second half of the 1990's. The D-Ram market is dominated by one megabit devices. Both Siemens and IBM began production of four megabit D-Ram's last year and the two companies are working independently to develop the 16 megabit D-Ram.

The Siemens-IBM agreement follows the collapse of one American attempt to ensure that the US retains some presence in the manufacture of *memory chips. US Memories* was to have produced four megabit D-Ram's in an effort to reduce dependence of the US computer industry on Japanese suppliers.

The US Memories project collapsed when it failed to gain financial support and a promise to purchase chips from US computer companies.

The second new attempt by European semiconductor manufactures to remain in the D-Ram market came in January when the European Commission published an agreement with 11 Japanese memory chip manufactures.

The agreement followed complaints by European manufacturers that Japanese semiconductor companies had been selling D-Ram in the EC at prices lower than the cost of production.

An anti-dumping investigation carried out by the Commission found that the input of low priced Japanese D-Rams resulted in Japan's unit share *of the EC market rising from* 24.6 per cent in 1983 to 70.5 per cent in 1987, peaking at 81.1 per cent in 1986.

The commission said that it was essential that Europe's ability to manufacture D-Rams was preserved. It said that European companies would find it difficult to manufacture more advanced semiconductor devices if they did not remain in the D-Ram market.

The commission added that the semiconductor industry was a strategic sector for Europe because it provided important components for the computer, telecommunications and motor industries.

The Commission said that it was aware that some users of D-Ram's in Europe might object to an agreement which raised the price of memory chips. For that reason the Commission agreed minimum prices with Japanese manufacturers which, it contended, would interfere with the market as little as possible. The minimum prices would be based on the weighted average cost of the manufacturer's, with the weighing done on the basis of each Japanese producer's sales volume to the Community.

The Commission said that because the producers with the lowest cost tended to have the highest sales in Europe minimum prices were likely to be lower. The minimum price allowed the producers a 9.5 per cent profit margin on the cost of goods sold. The European Electronic Components Manufacturers Association (EECA) pointed out that this agreement would even allow high cost producers to dump chips on the European market, by selling them at prices below that of the cost of their production.

There were also other concessions to users of computer chips. The Commission said it would review the effectiveness of the agreement in September 1991 when a semiconductor agreement between Japan and the US ends. The Commission added that new generation products could be imported into the Community at prices below their cost of production for a certain, unspecified, period. *There would be no minimum price for sample products.* Each producer would be able to provide each customer with 1,000 samples at below the minimum price.

None of these concessions have mollified Europe's computer producers and other D-Ram users. Mr Bruno Lam-*borghini, vice president for corporate planning* at Olivetti, the Italian computer manufacturer, says that because the Commission will only review *minimum prices quarterly*, they might not be able to keep up with the market. He pointed out that memory chip prices can drop very rapidly. He said that the *number of samples* that could be provided at below the minimum price was far too small.

Peter Marsh looks at biotechnology

Criticism grows in Europe

AN IMPORTANT test case in determining the regulations for controlling biotechnology in Europe's biggest chemicals and pharmaceutical market takes place in West Germany later this year.

In April, plans by BASF, the *large West German chemical* group, for producing small quantities of a new biotechnology-derived drug will be scrutinised at a public hearing in *Ludwigshafen*.

The hearings, part of the legal process necessary in Germany before biotech factories can proceed, will test the level of public opposition to a range of techniques which in West Germany over the past two years has led to controversy.

Biotechnology is a set of scientific methods for rearranging genetic material in biological fragments. The goal is either to produce *chemicals, such as* drugs, or to alter the characteristics of plants so as to increase their resistance to disease.

It is extremely difficult to judge what biotech will mean to industry over the next decade in financial and product terms. While in the early 1980s *many* had high hopes that the technology would, in particular, produce highly exciting new drug treatments, there is much less optimism today.

Many of Europe's large chemicals and drugs companies are spending large sums in building up their research expertise in the technology.

In the forefront of these moves is Hoffmann-La Roche, the Swiss pharmaceutical company, which a few weeks ago agreed to buy for $2.1bn Genentech, a leading US biotech company.

A number of smaller, more specialised, businesses in Europe are developing ideas in the technology for specific applications. Among these groups are Belgium's Plant Genetic Systems and the Agricultural Research company in the UK, both examining biotech *methods* to aid crop growth while Celltech of the UK and Denmark's Benzon Pharma, are looking at drug applications.

However, in West *Germany* plans of this kind have run into problems. In Germany more than anywhere else, developments in biotech have led to fears that *scientists* could unwittingly produce genetically-altered organisms that might prove dangerous. One scenario pointed to by anti-biotech lobbyists is that such organisms could "leak" into the environment, perhaps colonising parts of humans or animals and cause widespread upsets to ecological systems.

In spite of complaints by scientists that such fears are unjustified, the weight of protests from biotech pressure groups in West Germany have led to a virtual ban on starting production plants *for making* products using biotech methods.

Hoechst, the big West German chemicals group, was affected by a court ruling last *year in the state of Hesse. That* stopped it proceeding with a scheme to start up a biotech-derived human insulin factory in Frankfurt.

The negative climate for biotech in West Germany has caused concern in the country's drug and chemicals industry.

Raucon, a Dielheim-based company of biotech consultants, complained in a report last year that the developments are threatening to "choke" German work in this field.

Executives at BASF fear that their company will be the next to suffer. BASF wants to build its plant in *Ludwigshafen* to produce pilot quantities of tumour necrosis factor (TNF), a drug based on a naturally occurring protein that could help cancer treatment.

Dr Hans Uwe Schenk, *head* of life-science research at BASF says the lack of clear legal guidelines in Germany governing biotech creates obstacles *for* companies such as BASF.

"The main difficulty is the uncertainty," says Dr Schenk, who in July takes over as the head of *Knoll*, BASF's pharmaceutical subsidiary. "We have no way of knowing how long the approval process for biotech factories is likely to take."

Partly because of the worries about the lack of a legal framework, BASF, together with Hoechst and Bayer, the other big West German chemicals group, is going ahead with plans to base much of its biotech research in the US. "Public acceptance is better in America," says Dr Schenk.

Meanwhile, the Bonn government has promised a new federal law related to genetic engineering. But unless this is squeezed in before the general election in West Germany later this year it seems there will be a long delay before the law is enacted.

In the longer term, drug industry managers both in West Germany and elsewhere believe they will get powerful benefits from the new technology, assuming the kind of environmentally-related problems that surround the field in Germany can be resolved.

Only about 1 per cent of the world's $120bn a year sales of medicines comes from biotech products and many analysts are cautious about predicting the rate of increase *over* the next few years.

That follows the line of a recent report on biotech from Arthur D. Little, the US technology consultants, which warns industry not to expect too much from the technology.

Telecommunications markets are opening up, says **Hugo Dixon**

Prepared for rapid change

THE EUROPEAN tele communications industry seems set for another decade of breakneck change in the 1990's. The three factors which will drive developments are deregulation, technological advances and the opening up of eastern European markets.

After a year of wrangling, the European Community's governments agreed last December on a directive to open up the Community's telecommunications services markets. This compromise envisages free competition in data communications – including basic data services – from the beginning of 1993. Competition in value added services – such as electronic mail and the provision of electronic data bases – will start later this year.

The services directive complements a directive opening up the terminal equipment market, which came into effect last year.

Further EC moves include the agreement earlier this year to open public procurement of telecommunications infrastructure to competition. Traditionally, public telephone operators (PTOs) have bought equipment from favoured national champions.

The Commission has also acted against a price fixing recommendation for leased lines employed by CEPT, the club of Europe's telephone operators. CEPT withdrew its recommendation earlier this year following a decision by the Commission that it was restricting competition.

Later this year, the Commission is expected to publish its long-awaited policy paper on satellites. It seems likely to propose that satellite links should be treated in the same way that other telecommunications links are from a regulatory point of view. This would mean that anyone would be able to provide data services by satellite. The EC is working on a second directive on terminal equipment. This will consider whether the licencing arrangements for telecommunications equipment should be opened up.

On a longer time scale, the Commission is examining the prices of telephone services within the Community. It is concerned that it costs, on average, between two to three times as much to make a phone call across borders as it does to make a long distance national call.

Moves towards deregulation are being initiated in the member states. France and West Germany have adopted the UK's model of having two competitive mobile communications network operators. The UK last year went a step further and licensed three new personal communications networks – to compete with the two existing cellular operators and British Telecom's fixed network.

The French government is working on new legislation to spell out precisely which areas of the telecommunications market are France Telecom's monopolies and which open to competition. The apron strings which bind FT to the French Government are being untied, with the aim of enabling the company to become more dynamic and entrepreneurial.

Later this year, the UK government embarks on a review of its telecommunications policy. It will examine whether BT and Mercury Communications should face more competition in providing basic telecommunications and whether BT should be allowed to put television down its network.

It is clear that the deregulation genie is out of the bottle. As each country has pressed ahead with its own liberalisation plans, it has become more difficult for others to maintain their traditional monopoly structures. This is partly because the lobby of business users is becoming more vocal. Large multinationals have experience of free markets in one country demand similar treatment elsewhere or threaten to move their offices.

The structure of the European telecommunications manufacturing industry seems fairly stable after many years of reorganisation. There are three main indigenous groups: Alcatel of France; Siemens of West Germany, which has a 40 per cent stake in Britain's GPT; and Sweden's Ericsson. AT&T last year gained an important foothold in Europe following its alliance with Italy's Italtel.

In spite of the EC's directive, it is unlikely there will be a burst of competition between these groups in the public switch market. The PTOs have chosen their suppliers and are unlikely to want to review these decisions until the end of the century.

Vigorous competition, however, can be expected to supply the PTOs with special features, transmission equipment and overlay networks. Competition will come not just from the traditional switch suppliers, but from other companies in the electronics industry.

Over the next five years, Europe's PTOs will start converting their systems into intelligent networks. This will involve adding a series of sophisticated data bases. Computer companies such as Tandem and Digital, of the US, are likely to be in this market. On the transmission side, the first cross-border alliances are being announced. One of the first was consummated last year between Britain's STC and France's SAT.

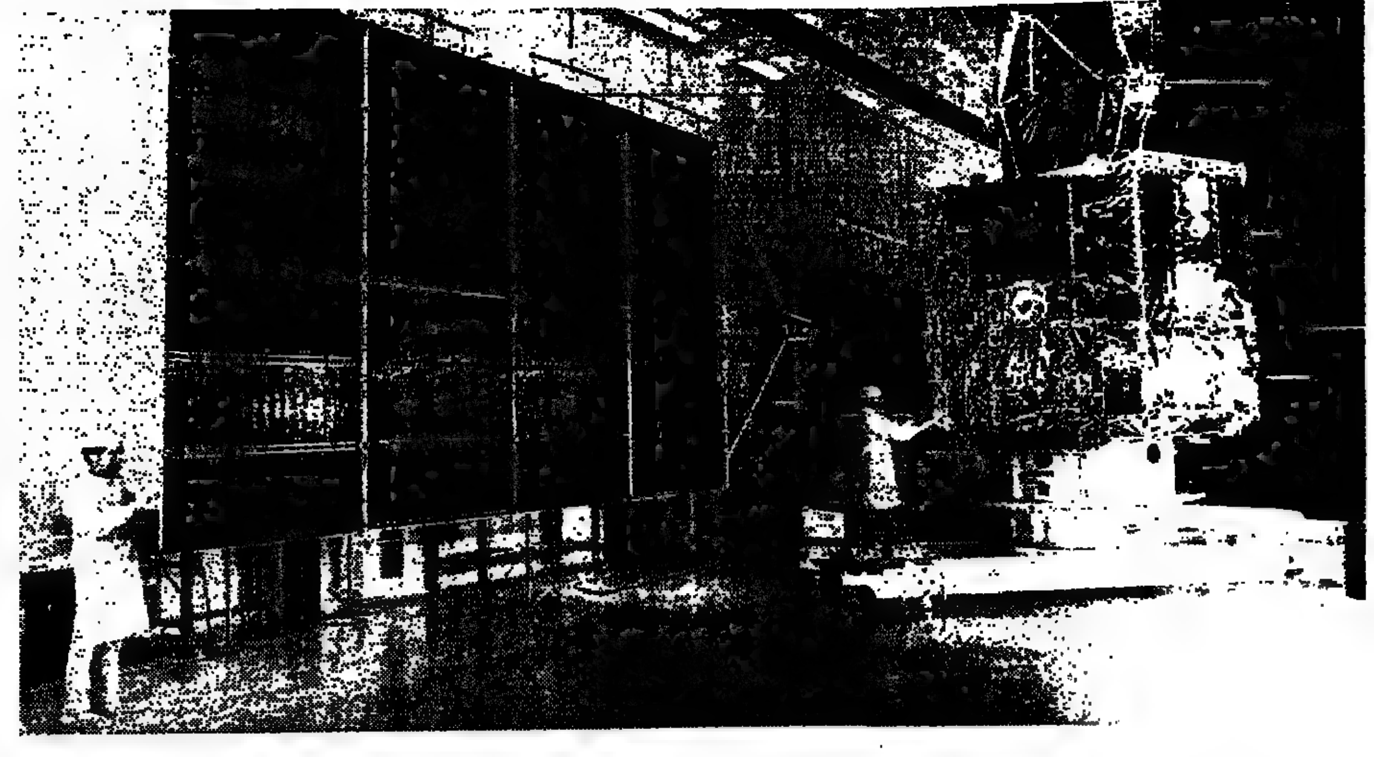
A leading question on the transmission side will be how quickly the PTOs invest in providing fibre optic links direct to their customers. This will be determined by economics and by regulations. If for example, BT delivers TV down its network, it will be more attractive for it to invest in fibre.

Mobile communications are the fastest growing and most important overlay networks. The pan-European digital cellular systems are due to start next year. Personal communications networks could begin in the UK in 1992.

Political changes in eastern Europe provide another exciting opportunity for Western telecommunications manufacturers. The telephone networks in eastern Europe are underdeveloped and the local manufacturers lack the necessary technical and financial resources to modernise them.

There is likely to be vigorous competition between the main Western manufacturers to form alliances with manufacturers in the East and to supply equipment.

Hungary and Poland are looking at radical options for abandoning the monopolies held by their PTOs. This may offer opportunities for Western PTOs to take part in rebuilding and managing eastern Europe's networks.



The French DBS satellite TDF-1, built by a consortium from France, West Germany and Belgium

DEFENCE ELECTRONICS

Fewer but bigger orders

THE GOOD news about the diminishing military threat emanating from the Soviet Union and its allies is not all bad news for defence electronics companies in western Europe.

Together with the outlook for military budgets in the industrialised world, which were tight and getting tighter, it implies changes in the nature of the business and the way they position themselves in it.

The emphasis on advanced electronic systems will not diminish, and should actually increase if the trend is to be towards small but high-quality armed forces.

Companies involved in the £22bn European Fighter Aircraft, for example, argue that the case for a high-performance interceptor jet will be reinforced even if fewer are purchased than originally planned.

Some areas of technology will benefit from the switch in priorities: defensive systems generally and surveillance systems in particular.

Arms control agreements as complex as the conventional forces deal under negotiation in Vienna will create their business in verification measures.

A diminution of opportunities in the defence field, partly a result of greater integration of weapon systems, which means fewer but bigger projects, has been hanging over the industry for some time. Large chunks of it have changed hands in a battle to obtain dominant positions in specific areas of the business.

The radar and communications divisions of the UK's Plessey went to Siemens of West Germany. Plessey's underwater and avionics businesses went to GEC.

The bulk of Philips of the Netherlands' military activities has been bought by Thomson-CSF, the French state-controlled group. Philips' Swedish offshoot in the same field was picked up by Bofors. Messerschmitt-Bölkow-Blohm, West Germany's main aerospace and missile company, was taken over by Daimler-Benz, which had a significant share of the country's military electronics.

Short Brothers of Belfast, involved in some high-technology areas of missile systems and composite materials, was taken off the British Government's hands by Bombardier of Canada.

Now Ferranti International, in desperate straits after alleging it was defrauded of £215m, is to sell its core radar and electro-optics operations to GEC, reinforcing the latter's domination of what has up to now been a widely-dispersed UK industry.

This consolidation has been mostly within national borders, but cross-frontier groupings are starting to emerge. British Aerospace and Thomson-CSF have broken new ground by setting out to merge their guided weapons activities into one, jointly-owned company, to be called Eurodynamics.

BAe had already agreed, for the first time, to use a French guidance system for an air-to-air weapon, and GEC-Marconi made a parallel agreement in the same sector with Thomson-CSF's rival, Electronique Serge Dassault.

The rationale behind the missile group is to ensure a hold on a broad range of important technologies, so as to be in pole position to head up weapon projects, and to provide in-house funding for ever-increasing research and development costs. BAe, for example, places high hopes on a new "intelligent" anti-tank munition called Merlin but has had to fund it without government backing.

Individual European countries, the argument goes, do not provide sufficient markets to justify the R & D expenditure contractors need to compete with US companies and, as they move more into military fields, the Japanese.

The US Department of Defence has identified technology areas of military use in which European companies may have some distinct advantages - including integrated optics, parallel computer architectures and air-breathing propulsion - or be able to exploit niches, for instance in high-power microwaves.

Cross-border corporate links and collaboration agreements can be expected to multiply, while the first moves are under way to establish something akin to an open market in armaments between European Nato countries.

This has happened in a small way between the UK and France, especially in subsystems. For instance the new British tank proposed by Vickers includes, for the first time, a French sight.

France, the only European country with a defence sector comparable to the UK's, but much more state-run, has transformed itself into a fervent proponent of co-operation.

The emphasis on advanced electronic systems will not diminish

It has been the main inspiration behind the 12-nation Euclid project for collaboration in defence research, which aims at creating "poles of excellence." Individual countries have been assigned "pilot" roles for work in priority sectors, such as the UK in electric guns, with the aim of using government research funds better.

However, it relies on these national funds and does not have a central pot of money of its own as the French wanted. Industry has to carry part of the burden. It is therefore quite distinct from the Eureka system under which companies can present projects to obtain backing.

In the UK, meanwhile, the bulk of the Ministry of Defence's research establishments are being regrouped under a Defence Research Agency, designed to exercise greater autonomy, establishing a clearer customer-supplier relationship and taking on outside business to make better use of facilities.

The new status may enable the research centres to stem the steady outflow of qualified staff to better-paid private-sector jobs.

David White
Defence Correspondent

EUROPEAN HIGH TECHNOLOGY 7

Chemical producers want to rid themselves of the old smokestack image

Peter Marsh looks at the chemicals industry

Shift in emphasis

MANY of western Europe's chemicals producers are trying to jettison their image as old-fashioned, smokestack manufacturers and recast themselves as among the leaders in high-tech industry.

Behind this move is the general reshaping of the chemicals business in which customised, research-intensive products take on greater importance.

The modern international chemicals industry took shape in the late 19th and early 20th centuries in Europe. Germany, Britain, Switzerland and Belgium were the most important centres for innovation.

Since those days the emphasis in the sector has gradually shifted away from production of high-volume materials such as standard plastics, artificial fertilisers and industrial chemicals such as sulphuric acid, soda ash and sodium hydroxide.

Such materials are still required in large volumes, and when general economic growth is strong, as has been the case for most of the late 1980s, demand and prices are sufficiently high for the substances to make good profits for their makers.

Most chemicals producers believe the main growth areas for the sector over the next decade will be represented by much more specialised substances which command relatively high prices. New research ideas in fields such as biotechnology and materials science will become increasingly important.

A vital part to this shift is the idea of chemicals suppliers moving close to customers and working in tandem on projects which concern the transfer of technological know-how as well as of raw materials.

Many of Europe's big chemicals companies, including ICI, France's Rhône-Poulenc, and BASF and Hoechst of West Germany, are trying to organise themselves increasingly around such a philosophy.

Perstorp, a Swedish speciality-chemicals maker, exemplifies the general trends, although it can fairly claim it has been following these for rather longer than many of the giants.

The company has been aiming its products at small, niche markets for virtually all the period since it was formed late last century.

"We try to sell our products not in terms of specific chemicals but what they do for the customer," says Mr Karl-Erik Sahlberg, Perstorp's president.

Perstorp gains roughly half its SKr6.4bn annual sales from three product areas based on formaldehyde chemistry – polyalcohols for use as paint additives; thermoset moulding resins, mainly for products in the car and electrical industries; and decorative laminates.

In all these areas, Perstorp liaises with hundreds of different customers, supplying different mixes of chemicals depending on the need of the user.

The company charges a price for its products that reflects not just the raw costs of the materials but the value of the systems expertise required to put the compounds into use.

Similar moves are taking place in plastics, a $130bn-a-year world industry dominated by sales of standard, high-volume materials such as polystyrene, polyethylene and polyvinyl chloride. Manufacturers are putting more emphasis on making high-value, specialised materials known as engineering plastics.

These are based either on use of additives to strengthen or change the character of the high-volume types of plastics or on relatively new families of resins such as polycarbonate and acrylonitrile butadiene styrene (ABS).

Mr Denis Wilcock, in charge of the European plastics activities of Dow, the large US chemicals company, says working closely with customers is vitally important to building up a long-term presence in engineering plastics. These materials account for world sales of about $25bn a year, a figure growing by about 8 per cent annually.

Mr Wilcock attaches special importance to the car sector. He says Dow is working with a number of big manufacturers such as BMW, Fiat and Volkswagen to study use of the materials in specific car parts.

By following the trend towards more specialised types of materials, the plastics industry reckons, it should be able to insulate itself from broad ups and downs in economic conditions which mainly affect demand for commodity products.

The move should fit in with the gradual switch towards more varied, customised goods in many of the businesses which the plastics sector serves, not just in cars but in areas such as construction, packaging and consumer goods.

Much of this refocusing of links with the outside world fits in with the drive by big plastics groups in the areas of conversion operations and research and development.

In conversion, plastics companies add value to their materials by getting involved not just with turning out products in the form of plastics chips which then have to be processed but with making finished or semi-finished products such as film or sheet.

A number of companies including European Vinyls, a joint venture between ICI and Enimont of Italy which is Europe's biggest PVC maker, are moving in this direction.

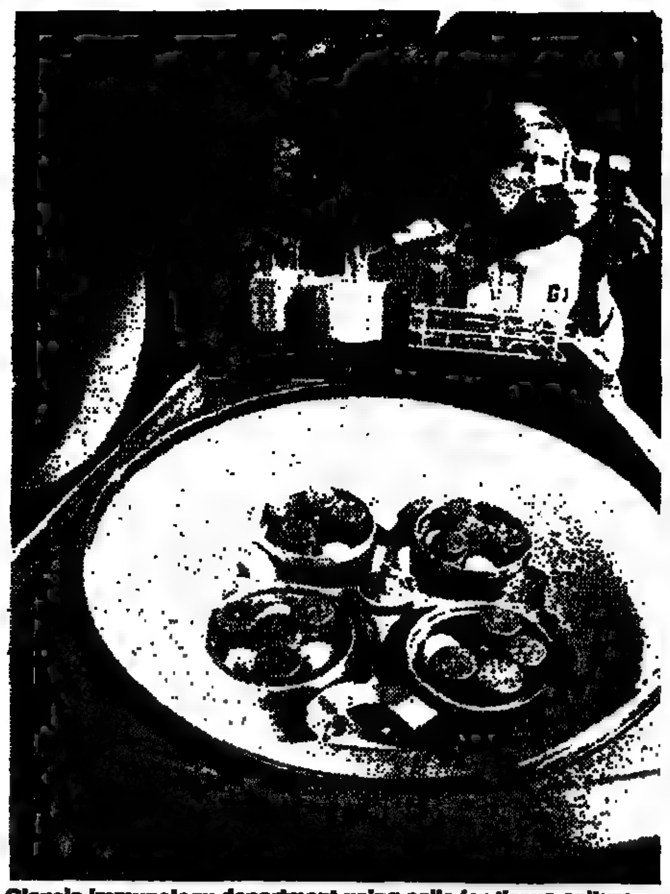
Out of the extra efforts in R&D is coming a widening variation in alloy types in which different kinds of materials are mixed in set concentrations.

Much of research is linked to the addition of small amounts of chemicals to make a material flow better in a moulding process or to change its surface finish.

Other trends are the assembly of layers of dissimilar plastics to make products with new characteristics, such as lack of permeability to gases that can be used in packaging to preserve food.

Special additives can help to change the stiffness or density of a finished product, whether this be a garden chair, a tie rod for a car engine or a children's toy.

"We have learned a lot in the past 10 years in basic materials technology," says Mr Erich Schnitzler, marketing director for plastics at Hoechst.



Glaxo's immunology department using cells for tissue culture

PHARMACEUTICALS

Drug makers face a variety of pressures

WESTERN Europe's big drug makers, coming under a variety of pressures, face tougher times over the next decade. The continent's £25bn a year pharmaceutical industry has over the past 20 years been among the success stories in the high-tech sector.

The business is among Europe's largest spenders on research and development – many companies direct 10 per cent or more of their sales to this activity – and has a strong record in export sales out of Europe.

The drugs sector in Europe contains a number of large and highly successful groups such as Glaxo of the UK, Switzerland's Sandoz and Ciba-Geigy, Rhône-Poulenc of France and Bayer and Hoechst of West Germany.

The pressures on the sector come under a variety of categories:

- Research costs are rising due to tighter government safety standards for medicines which must be met prior to new products being allowed on the market, requiring increasingly onerous and expensive clinical trials.
- Governments, the main paymasters for pharmaceuticals in Europe through state social security systems, are keener than ever to cut costs in health service spending, a trend seen especially in the UK and West Germany.

That may limit drug company's ability to set high prices for their products, particularly new ones.

- The effects of the European Community's planned trade liberalisation after 1992 may be to push down prices by an ironing out of the price differentials for drugs throughout Europe.

While countries such as Britain and West Germany have been at the upper end of the price spectrum, Italy, Greece, Portugal and France have generally had lower prices and drugs industry chiefs worry that the average over the next few years is likely to move downwards as the liberalisation measures take effect.

- The generics drug industry, makers of cheap off-patent products which are copies of branded drugs produced by the large research-based medicines companies, is likely to gain strength, putting profit margins in the big companies under increasing pressure.

There have been a number of different reactions in Europe to the changes that the 1990s are likely to bring:

- Some companies have followed the general trend in the drug industry of seeking bigger operating units, in an effort to maximise the effects both of research activities and marketing.

Rhône-Poulenc for example, has in recent months moved to greatly enlarge its presence in North America, the world's biggest drugs market, by buying Canadian vaccines maker Connaught BioSciences and by taking a majority share in Rorer, a medium-sized US drug group.

- Other companies have followed a similar line in lifting research and market presence not by acquisitions but by more informal accords in which different companies agree to share resources.

Three small European medicines groups – Merckle of West Germany, Laboratoire Lafon of France and ASW in Italy – have formed an alliance to swop ideas and jointly licence new compounds from other countries into Europe and vice versa.

- There has been a general mood of belt tightening in some companies. Glaxo, for example, which has been one of the world's fastest growing drug groups in recent years, has instituted a series of measures to hold down costs especially in research and administration expenses.
- Some groups have opted, highly successfully in some cases, for the route of specialisation in particular healthcare niches.

The theory is that this may help in an industry that will become increasingly competitive in the next decade. The moves apply especially to companies in the Nordic region which are relatively small in world terms.

Thus Novo-Nordisk of Denmark has concentrated its energies mainly on insulin and other diabetes products; Hafslund Nycomed of Norway is a world leader in products for use in diagnostic imaging; while Sweden's KabiVitrum specialises in biotechnology-derived protein medicines such as human-growth factors.

- There has been a move by some research based companies to take a greater stake in the generics industry which many assume will grow during the 1990s across Europe. Both Rhône-Poulenc and Ciba-Geigy are keen to expand in this area. But there are no guarantees that work in this field will bring swift rewards; some of the smaller generics companies in the UK have in recent months expressed fears about tightening margins and tough competition.

One general trend in the research-based industry has been to push for greater patent protection for new products which would extend the time makers can sell their medicines free from generic competition. The European Community is moving in this direction and has proposed an extension of the effective patent life for many new compounds by adding extra protection, of roughly four years, after the formal patent has run out.

This move, which drug industry executives say is needed to compensate the sector for its long development times of up to 12 years for a single product, may run into opposition. The drug sector, in spite of its contribution to lifting life expectancy in the past few decades, is not popular.

A new book touches on these points: "The industry allegedly markets dangerous products, encourages overprescribing of expensive drugs, makes excessive products and spends unnecessarily on marketing and administration.

"All these criticisms are denied by the industry but have wide circulation and it is not a matter of indifference where governments and legislators stand," it says.

Pharmaceutical Chemicals In Perspective, Bryan Reuben and Harold Wittcoff, John Wiley.

Peter Marsh

SPACE

Taking the risk out of rockets

SPACE BUSINESS is risky business. A company can spend years putting together a multi-million dollar satellite and then spend some expensive seconds watching it explode in a performance worthy of the fourth of July.

"You put together an extremely sensitive piece of equipment and then place it on top of a bomb over which you have no control," explains John Holt, managing director of British Aerospace Space Systems. "There is no safe abort. It's all or nothing."

The reliability of launching vehicles has traditionally plagued the space industry.

The most recent example occured last month when an Ariane 4 rocket exploded shortly after lift-off with two Japanese satellites on board.

However, observers believe that this accident should not herald a return to the era between 1986 and 1987 when a series of launches failed, making space virtually inaccessible.

The Titan, Atlas and Delta programmes all experienced failures, as did Soviet and Chinese programmes. During the same period, the US space shuttle suffered an accident.

Insurance rates climbed from between 5 and 10 per cent of the launch and payload's cost to about 40 per cent, making the price of entry into space almost prohibitive.

Analysts are confident that the Ariane failure should not prove too serious for two reasons.

The launching vehicles appear to be becoming far more reliable. The Ariane accident put an end to a run of 17 successful launches – an unusual achievement in an industry where the failure rate of expendable vehicles averages about one in 10.

In addition, the analysts point out that a new generation of expendable launching vehicles is coming on stream, making dependency on any one programme less important. The USSR, China and Japan could all become significant players in the commercial market during the 1990s.

When there are failures it is the insurance industry that picks up the tab. During 1985, the worst year for failed launches, the industry paid out about $350m. During the 1980s, it paid out about $1.5bn.

After these experiences, the insurance industry, mainly based in the US, remains cautious about the space sector. Mr Benyon Poole, director of Sedgwick Space Services, the London-based insurers, says that premiums are unlikely to fall below 17.5 per cent following the Ariane accident. There had previously been some softening of the market.

One implication of the series of accidents during the mid-1980s has been the trend for satellite customers to insist on paying for delivery in orbit, making the satellite manufacturers liable for launch failures. This has also been driven by the growing sophistication and cost of satellites.

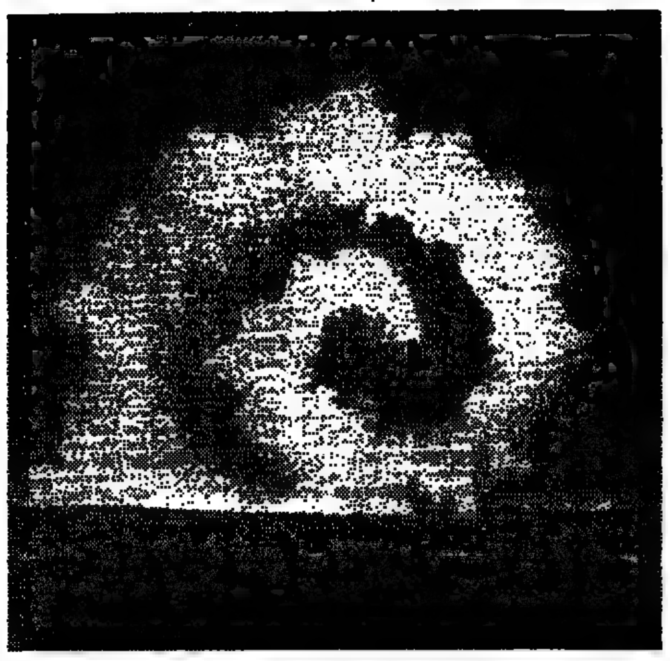
This trend has intensified acute competition in the busy satellite manufacturing market. The supply of satellites is greater than demand and analysts expect a substantial restructuring of the market before the next decade.

That restructuring could be particularly significant in Europe. Indeed, the number of prime contractors for satellites in Europe could fall from six to two, or even one, before the turn of the century, according to Mr Marc Giget, director of Euroconsult, the Paris-based high technology research company. He argues that the economies of scale required to remain competitive will force companies to collaborate.

The effects of the restructuring can been seen. British Aerospace Space Systems is intensifying its links with established partners such as Matra, the French company.

In addition, the number of primary sub-contractors in France has been halved in recent years from about 10 to five.

The problem for satellite manufacturers is that if suppliers of satellites remain plentiful, customers may prove increasingly elusive. Admittedly, it is not evident that the improvement in East-West relations will be detrimental to the military satellite market.



This trident missile which went out of control seconds after its launch highlights the risky nature of the space business

Mr Marc Giget at Euroconsult argues that the success of detente is dependent upon passive satellites and that paradoxically the effect of a better climate between the super powers may be to increase the market for such devices.

Such an outcome would favour US manufacturers which historically have been heavily dependent upon the military market. Euroconsult estimates that the US military market is 10 times bigger than the civilian market.

The largest market for satellites – which is for classic telecommunications – appears to be reasonably strong at present, although a series of failed launches have not helped in the sectors' battle with fibre-optic technology.

However, the future of satellites for direct broadcasting appears to be more doubtful following heavy financial losses by companies such as Sky, and the loss or failure of satellites such as TVSat and TDF1.

In addition, the commercial viability of mobile communications based on personal communications numbers remains uncertain.

The European manufacturers are facing pressure from US manufacturers. The satellites for both BSB and Astra were supplied by American companies. European efforts to export to the US have not met with great success.

Attempts by the European satellite manufacturers to diversify have not produced significant revenue streams. The applications for Earth observation market, remote sensing or meteorology have not proved particularly remunerative and may not be until the mid-1990s.

Similarly, microgravity has proved interesting in scientific terms, but has not proved lucrative. In the long term, there are possible applications in electronic components, high-performance materials and micro-chemistry.

A more profitable sector for satellite manufacturers might prove to be in the area of service provision.

A number of companies, such as British Aerospace are interested in providing telephone and data information services.

"All the gravy in the industry goes to the service providers such as British Telecom and Mercury Communications," says Mr Holt.

Mr Holt explains that in the US a number of satellite manufacturers, such as Hughes, Ford and RCA are moving into the area of services. He hopes that the public communications duopoly existing in the UK will be broken up at the end of 1990 when it is next due to be reviewed.

In the meantime as the going gets tough, industry observers will be looking to see which European satellite manufacturers get going.

Paul Abrahams

Cars that think? **John Griffiths** looks at automotive electronics

Intelligence on the road

CARS and trucks are undergoing profound change as the result of heightened competition between manufacturers, overloading of road transport infrastructures and proliferating legislation in the areas of exhaust emissions, safety and fuel economy.

The principal enabling ingredient for this change is the use of electronics.

In their first applications, electronics provided little more than a smart way of operating individual devices in a vehicle, such as fuel injection in place of carburettors.

However, in the past few years electronically-controlled devices have proliferated and make up cohesive sub-systems within the vehicle.

These sub-systems in turn are progressively integrated with each other to the point where, perhaps by the end of this decade, the more technically advanced cars might be described as intelligent, with virtually all their systems under the control of on-board computers.

Commands and information about the status of working parts of the car will be relayed via a multiplex wiring system resembling the ring main wiring system of a house and with only two fibre-optic wires.

The multiplex system, expected to be introduced on some cars within the next two years, will be capable of handling far more data than is possible using even several miles of conventional electrical wiring loom. It will allow, for example, simultaneous control of traction, steering and suspension.

Other features lending themselves to control via electronic sensors, include air bag and safety belt tensioning devices, continuously variable transmissions electronically matched to the engine management system, anti-theft devices and in-car climatic control.

One of the most vivid examples is provided by the latest Mercedes SL convertible. A hidden rollover bar springs up within a few hundredths of a second of sensors detecting the car is about to crash.

Mazda, which launches a multiplex car later this year, says its system will have the signal carrying capacity of 6,000 conventional wiring looms. Importantly for factors such as reliability, the system is capable of diagnosing its own transmission errors and re-transmitting them.

Proving ground: Bosch testing its anti-lock braking equipment at Schwieberdingen, Stuttgart

However, as Professor Walter Kunerth, president of automotive systems at Siemens the West German electronics group points out, even such sophisticated control of the car appears to be only a stepping stone along the way to what he describes as a fully-integrated road transportation system.

In this system the car or truck's ability to communicate with a variety of external traffic control mechanisms will become at least as important as controlling the behaviour of the car.

Collision-avoidance sonar or radar, with sensors automatically applying the vehicle brakes to maintain a safe distance from the car in front, provides one example. A route guidance system in which vehicle and roadside beacons exchange information, is another.

Test guidance schemes are in operation in both the UK and West Germany, as part of the EC's Prometheus project aimed at halving the number of fatalities on Community roads by the turn of the century.

According to University of Michigan's Automotive Electronics Delphi V study, electronic components accounted for about 10 per cent of total average vehicle cost in 1989 but will rise to 15 per cent by 1995 and to 20 per cent by 2000.

Market research group Frost & Sullivan forecasts that the West European market for automotive electronics fitted as original equipment – excluding in-car entertainment – will be worth $2.53bn to suppliers by the end of 1993, compared with $1.35bn in 1988.

However, vehicle components comprise only a part of the contribution being made by electronics to what Prof Kunerth describes as "the dramatic changes under way which will reshape the motor industry in the 1990s."

At least as significant is the impact electronics are having on the ways in which vehicles are designed, developed and manufactured. The introduction of computer-aided design and engineering, and computer-integrated manufacturing, has cut the time to take a model from concept to production line to well under four years, particularly in the case of the Japanese.

The ground rules for viability in the industry are being altered by, among other processes, the flexibility on production lines made possible by the robotic framing and welding of car bodies. At Volkswagen's Emden plant in West Germany, for example, robots can switch between Passats and Golfs with only a few seconds' pause for a tool change.

This flexibility is sorely needed – such is the complexity of the latest, electronics-laden cars that conventional assembly lines would be stretched to inordinate lengths using time-honoured assembly.

Instead, as Mr Jeffrey Daniels points out in his Economist Intelligence Unit study, The Car of the Future: "The main effect of new technology in the production process has been, and increasingly will be, to dismantle the traditional production line" in favour of modular assembly, in which components assemblies are put together at separate work stations and brought under electronic control to an assembly line growing ever shorter.

At its ultimate, electronic control of production systems would entail "lights out production" of complete vehicles. Even among those most enthusiastic about computer-integrated manufacturing, however, this is acknowledged to be at best a distant prospect.

SECTION IV

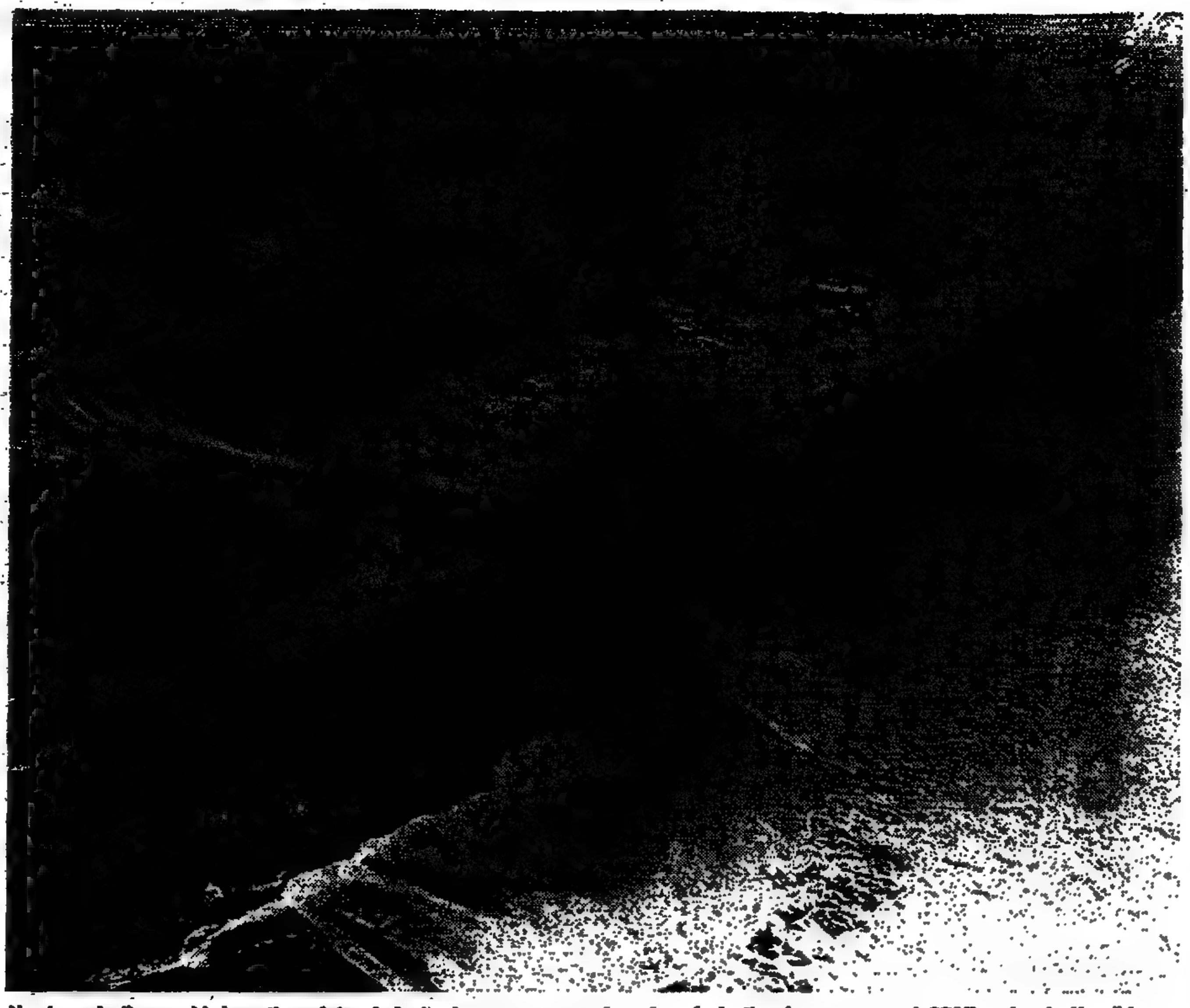
FINANCIAL TIMES SURVEY

Opencast mining faces unprecedented scrutiny over its operations and its impact on the environment. Some producers are trying to win acceptance not merely by repairing the damage but by leaving their sites greener than before, reports Maurice Samuelson

FORTHCOMING SURVEYS

The Financial Times proposes to publish surveys on related themes in the coming months. These include: ■ The Electricity Industry, March 28 ■ Water Industry, June ■ The Car and the Environment, July ■ World Nuclear Industry, September ■ Oil Industry, October ■ Energy Efficiency, November.
For further information telephone 873 3337

Under tough scrutiny



Nowhere in the world does the mining industry harness economies of scale to the degree seen at CDM's mine in Namibia

Opencast Mining

OUTER SPACE is probably the best place from which to start surveying opencast mining, one of the world's most widespread, intrusive and biggest industrial activities.

This is an industry whose common features are accompanied by intensive diversity and variety, in geographical location, in the materials which are extracted, the physical contours of the mines, their method of operation and equipment, and their economic assumptions.

The activity is also known by a variety of other names. Australians talk of "open cut", rather than opencast mining. Other common terms are strip or *surface mining, often* used interchangeably. Other terms, such as open pit, describe a particular method of working from the surface.

But bigness is their overriding common feature. Many opencast mines are visible from miles above the earth. One Australian pit is claimed by its owners to be visible from as far away as the moon.

Some mines rival in depth the world's biggest natural canyons, while shallow workings are often remarkable for the size of the area they cover.

All are recognisable at some stage of their development by the unnaturally symmetrical mounds of waste which skirt them. Others have obviously affected the course of rivers and led to the creation of artificial lakes and lagoons.

These huge projects are matched by the scale of the equipment, which includes some of the world's most impressive examples of mechanical engineering. They are dominated by the whirring conveyor belts transporting the raw material to ports or intermediate processing plants, often hundreds of miles away.

The industry's most distinctive pieces of equipment, the bucket-wheel excavators and walking draglines, are the world's largest mobile land-based machines.

Many of the machines used for digging and re-depositing material take years to assemble on site and, with correct maintenance, are designed to last up to 50 years, sometimes indefinitely.

Even less spectacular machines, dump trucks, loaders, shovels and a wide range of bulldozers, are monsters of the vehicle kingdom.

Since the market for these specialised machines is a global one, it is supplied internationally by a limited number of heavy engineering equipment makers, which make a point of having their names displayed on them in giant letters.

The West Germans and the *Americans dominate the heaviest* end of this market. The West Germans are led by Krupp, Orenstein & Koppel (O&K) and MAN for bucket wheels, stackers and conveyors, Demag and Liebherr supply face shovels, while O&K also supplies dump trucks to about 100 tonnes payload.

North American leaders for mining equipment include P&H, Marion (part of Dresser), Bucyrus Erie, Caterpillar, Wabco, Euclid, Unit Rig, Titan and Wiseda.

The Japanese are less prominent as suppliers of the biggest mining plant. Hitachi supplies some walking draglines, such as that at Costain's Dolet Hills lignite mine in Louisiana. And Komatsu makes dump trucks. However, the Japanese are *more active as large-scale suppliers* of relatively smaller equipment, such as excavators, tracked bulldozers and wheeled loaders.

The mining companies themselves are also large in size, ranging from the international mining houses involved in the more valuable ores and minerals, to multinational civil engineering groups, such as Bechtel and the US Fluor Corporation, seeking new outlets for their professional skills. The UK construction and mining group Costain, which once thrived on Middle East civil engineering contracts, now derives 50 per cent of its profits from mining.

The field has also been joined by a number of oil companies which branched out into coal in the 1980s to hedge *the uncertainties of their main*stream business.

As a prime supplier of raw materials the industry also has to ride the global economic currents and is susceptible to a wide range of socio-political factors.

The environmental movement of the late 20th century has exposed opencast mining to unprecedented scrutiny by political and public opinion, making it harder than ever to open up new mines, and frequently saddling them with costly conditions regarding the mining plan and restoration procedures once they are approved.

Many of the big minerals mines are also in politically inflammable parts of the world – Southern Africa, Central and Latin America, the Middle East *and Asia.* Their owners have to deal with the governments of the day without unduly offending the likely rulers of tomorrow.

But the diversity of opencast mining is as remarkable as its homogeneity. The mines mentioned in the following pages give but the briefest taste of their geographical profusion. They include sites in Australia, North America, Southern Africa, Germany and in Britain.

Huge lignite schemes, serving a belt of mine-mouth power stations, are under way in the Central Asian areas of the Soviet Union. There are also ambitious projects in eastern and southern Europe, the Far East, Indonesia and Latin America.

Among the more interesting mining ventures of the future are plans to exploit the so far neglected lignite of Northern Ireland, which offers a tantalising promise of cheap electricity to people who currently pay the highest energy prices in the UK.

No less diverse than location are the minerals extracted by opencast mining. They range in value from coal and lignite, located in many parts of the world, to more specialised, localised and valuable materials such as potash, bauxite, china clay, copper, silver, molybdenum, uranium, gold and diamonds.

The rarity of the materials and their accessibility from the surface are the prime considerations in deciding whether to mine them by opencast methods. That is because the chief cost factor is how much overburden has to be stripped away from the underlying seams or how much ore has to be sifted to expose the hard-sought mineral.

Rheinbraun, which produces lignite, or soft brown coal, for the West German power stations of the Rhineland, has to remove 6 cu m of sandy overburden for every tonnes of lignite it produces.

At the Dolet Hills lignite power station mine in Louisiana, operated by Costain, the ratio between overburden and lignite is more than 11 to 1.

Compare those figures with the 46m tonnes of overburden shifted by Consolidated Diamond Mines on the shore of Namibia to produce less than 1m carats or 200kg of diamonds a year. That is a remarkable diamond-to-waste ratio of one to 315m.

There is diversity not merely between the minerals won from the surface but in the skill and efficiency with which they are produced. This is acutely obvious in the contrasting efficiencies with which lignite is mined and utilised in East and West Germany.

Competition is particularly noticeable between producers of lower grade minerals, where the margin between profit and loss is at its slenderest.

Coal and lignite are the prime examples of this. In volume terms they are the leading sector of opencast mining and projects are particularly vulnerable to fluctuations in worldwide supply and demand.

Shallow coal reserves close to their markets have always been exploited. It was the oil scarcities of the 1970s and early 1980s which led to the emergence of an international long-haul trade in power station coal and spurred the mining of rich, shallow deposits in Queensland and Colombia; ultimately it led to Australia becoming the world's biggest coal exporter.

Since then, the coal market has been rocked by volatile economic growth, the 1986 downturn in oil prices, the stigmatisation of coal burning as one of the principal causes of the so-called Greenhouse Effect, and sensitivity about the chemical composition of the individual coals.

In some countries opencast coal mines also face tough rearguard action by older deep-mined coal industries, which are not only protected behind thick tariff walls but, as in Britain, have spectacularly improved their efficiency.

There is therefore sharp competition between the Australian opencast producers and their overseas rivals, especially in the US. One of the main areas of competition focuses on wages, working practices and *relations* between management and workforce.

As they exhaust the shallower coal, and the stripping ratios increase, the mine owners also have to consider whether or not to sink drift mines or shafts to follow the seams of coal underground.

In some Queensland mines, that border has already been crossed, and underground techniques perfected in the deep mines of Britain are more than holding their own against the giant machines so characteristic of the opencast mining industry.

The new RH 200 needs only four to five passes in load 151-tonne capacity dump trucks

Nick Garnett on the market for mining equipment

Encouraging pick-up

THE market for opencast mining equipment has picked up quite strongly over the past few years after being relatively depressed during the early and mid-1980s.

"It is a global market and demand is relatively favourable," says Mr Horst Bräunlich, head of marketing services at O&K, the German construction and mining equipment maker.

Mr Bob Reed, head of the large machinery unit for the overseas division of Caterpillar of the US, says coal mining activities have buoyed equipment demand while mineral mining, particularly for copper, has been heavily supported by rises in mineral prices.

The opencast mining industry relies on huge specialist machinery, principally face shovels and draglines for scooping up material, and the world's biggest rigid dump trucks for hauling work.

A whole range of less specialist machines such as graders, smaller rigid and articulated dump trucks, wheeled loaders, and excavators are also used in secondary activities such as rehandling and stockpiling.

North America is the biggest market and, like Australia and parts of Africa, uses the world's biggest machinery. Though there are great similarities in the type of equipment used at opencast sites around the world, there are some important geographic differences in the market.

The West German equipment industry is the only one to make large volumes of bucket wheeled excavators whose principal feature is a rotating wheel on which up to 20 "scoops" are fitted. These are popular tools for German mining companies and are particularly useful for working with soft material such as lignite which is commonly found in central Europe. US opencast mine operators tend to use more graders than in Europe for keeping mine roads clear and usable.

North America remains a powerful supplier of specialist mining machinery. Principal manufacturers include P&H, Marion (part of Dresser) and Bucyrus Erie (part of Terex) in either face shovels or drag lines depending on the producer; Caterpillar, Wabco (Dresser) Euclid (VME), Unit Rig (a division of Terex), Titan and Wisedain are prominent in big dump trucks; Caterpillar and Champion of Canada are in graders; and Marathon Le Tourneau makes very big wheeled loaders.

The Japanese have virtually no opencast mining industry and are not that strong in equipment supply but they do make some. Komatsu manufactures rigid dump trucks though not up to the heaviest weights, as well as graders, while Hitachi makes face shovels. However, Japanese manufacturers do make large volumes of secondary equipment like crawler dozers, excavators and wheeled loaders.

The European industry has several specialist makers with a lot of the production centred in West Germany. Companies involved include Demag, O&K and Liebherr for face shovels, and O&K for big backhoes and dump trucks of up to about 100 tonnes payload.

Coal mining activities have buoyed equipment demand while mineral mining, particularly for copper, has been heavily supported by rises in mineral prices

The heart of O&K's dump truck manufacturing is the former Faun company which O&K purchased in 1986 and which now sells under the O&K name. Swedish based VME also manufactures some equipment, including smaller dump trucks. RB Lincoln in the UK makes small drag lines but Ransome and Rapier, a once great name, has dropped out of this market.

Several trends have been influencing the nature of the equipment used in the industry. One is that machinery is getting bigger. The average dump truck had a 70-80 tonne payload several years ago but now it is about 120 tonnes, according to the Corporate Intelligence Group, an industry analyst.

Ten years ago, the very largest truck in operation in the UK was about 100 tonnes but now they are up to around 150 tonnes. The biggest production truck in the world now goes up to about 240 tonnes though the largest haulers ever built are thought to be 315 tonnes, built by Titan.

These increases in size have been accompanied by greater use of turbo charging and inter-cooling to give engines the required power to cope with such massive weights. The biggest dump trucks are now operating with up to 2,000hp under their bonnet.

In dump trucks there is still a competitive battle between direct mechanical drive and electric drive. In the former, the diesel engine powers the machine conventionally through a transmission. In the latter, the diesel powers an on-board generator, the electricity from which powers drive axle electric motors attached to each wheel.

Mechanical drive offers lower costs because of simplicity of design and fewer moving parts but is weight-restricted. One reason for this is that such vehicles require enormous transmissions. Recent engineering developments allow this type of drive to power trucks of up to about 190 tonnes, according to Mr Reed at Caterpillar. He says that Cat will develop drives to cope with payloads of up to 240 tonnes but, for the moment, trucks with the largest payloads must use electric drive.

Many mine operators in North America and Australia use electric drive vehicles even for payload tonnages of less than 150. Some trucks run directly off cables connected to power generating stations. In the UK, electric power trucks have not been popular.

Many other types of equipment have risen in payload and horsepower along with these principal machines. The biggest wheel loaders have engines with horsepower exceeding 700 and bucket sizes of more than 10 cu m.

"Equipment goes up in size together and will continue to do so," says Mr Reed. "It has to because each industrial machine is part of a complete system."

PROCESSING

Brute technology the force behind mineral extractions

GETTING material of whatever kind out of the ground and into a wagon is only half the process – the product the customer will purchase bears little physical resemblance to its condition at source.

There is no standard method of treating extracted minerals; each type of material and each end product requires its own particular treatment. That treatment may vary from simple reduction to a suitable size in the case of rock for bulk fill to fine grading of coal for a particular client.

But in general, the first stage of processing is primary crushing or reducing the "as dug" material to a suitable size for subsequent treatment. For rock production primary crushing is a matter of applying sufficient brute force to split the base material into smaller particles.

Various types of primary crusher exist, such as the impact crushers produced by Brown Lenox, Peabody Holmes and Parker; jaw crushers from Baxter Crushers and Hewitt-Robins; roll crushers from British Jeffrey Diamond; and centrifugal impact crushers from Tidco.

Primary crushers can either be permanent installations or mobile and the choice frequently depends on the size of the site. Though usually smaller in size than permanently installed plants, mobile units are becoming ever more popular in the UK due to their flexibility – as the working face moves forward, so can the crusher be moved, reducing haul times and the number of wagons required to maintain a steady flow of material to the crusher.

Mobile units are available from manufacturers like Orenstein & Koppel, Goodwin Barsby, Lokomo and Pegson among others.

Secondary crushers then trust the reduced material once more to provide a final product of the required size. Smaller jaw crushers fit the bill, as do gyratory crushers and cone crushers.

But to ensure that processed material fits into the specified grading envelope (the allowed size range of single lumps), crushed rock must be screened.

The treatment of extracted minerals varies from simple reduction to a suitable size in the case of rock for bulk fill to fine grading of coal for a particular client

The basis of a screener is simple: the stone is passed over a grid of a certain size – pieces that are too large are rejected, pieces of the correct size and below pass through. Rejected material is normally returned for further crushing and a combination of screens can produce single size material or a specific size range, for instance, 5mm-25mm diameter.

By the very nature of their operation, screens come in a wide variety of forms. From the simplest which is just an inclined set of rails which forces oversized matter to slide off to the side to stacked sets of vibrating grids, each of which in turn select pieces in a very narrow size band.

Wear and tear is naturally an important factor in choosing a screen. They therefore vary in type from heavy duty metal fabrications for large lumps of material to fine mesh and wire for sand; even polyurethane decks are used in specialist applications.

Screens are frequently available from the same manufacturers as crushers and other producers include Locker, Mogensen, GEC Mechanical Handling and Babbitless.

Actually moving the material around the process area may sound like the easiest part of the whole operation but there is more to conveyor technology than meets the eye. Conveyors have to be designed to carry the optimum amount of material, at the optimum speed without clogging, spillage, wearing out too quickly and throwing dust around. And this must be achieved for the minimum possible capital outlay.

Where it is important not to lose dust and fine material it is normal either to cover conveyors or to use a tubular conveyor where the flexible belt is formed by the guide rollers into a tube around the material.

As with crushers and screeners, conveyors can be bought either for permanent installation or as mobile units. Conveyor suppliers include such companies as Dowty Meco, Huwood and Northern Conveyors.

To avoid overloading, conveyors are often loaded by vibrating feeders which are matched to the speed of the belt to ensure that the correct amount of material is placed on the belt – too much and there will be spillage, too little and the belt is not working to capacity. Feeders are available from Pedershaab, Becorit & Herweg, Skako and Hewitt-Robins.

For stockpiling and storage, material can be stacked using either inclined conveyors or buckets elevators. These are supplied by companies such as Rud Chains.

Some users prefer to mix and match their plant from a number of suppliers, others to go for an all-in parcel of equipment: complete quarry plant packages are also available from companies such as Parker, Peabody Holmes, GEC Mechanical Handling and Brown Lenox. Each site can be individually assessed according to its needs and a plant designed to fit the bill.

Colin Schafer

Kenneth Gooding on a tale of corporate intrigue

Rise of the Super Pit

THE STORY of the Super Pit on Kalgoorlie's Golden Mile in Western Australia involves gold, greed, one man's realised dream, larger-than-life characters, corporate catastrophe and corporate opportunism, the saving of a town and much, much more.

At centre stage is Mr Alan Bond, the now-tarnished Perth deal-maker, who burst on to the Kalgoorlie scene in 1984 with a dream about how to make a fortune from gold.

His eyes had long been fixed on the Golden Mile, a stretch of the Eastern Goldfields around Kalgoorlie, 375 miles east of Perth.

Since the day in 1893 when an Irishman named Paddy Hannan found the first gold nugget in the area, the goldfields have produced about 40m troy ounces of gold (about 1,344 tonnes), making it Australia's most-productive gold fields.

The remoteness of the goldfields did not deter the early prospectors who flooded in to Kalgoorlie. The town's massive cemetery is a stark reminder of the hard times faced by the earliest inhabitants or "diggers". Water was scarce (and still is), sanitation was absent and disease rife. In this area there are no beaches and no mountains – just dirt, heat, flies and gold.

Kalgoorlie has changed for the better and still the gold comes forth. Output in the area is still about one tonne a week and Mr Bond's aim was to boost that production even further while at the same time cutting costs. He wanted to buy up a string of mines along the Golden Mile and absorb them into one Super Pit.

This is a simple enough concept but it represents a technical challenge made feasible by recent advances in the treatment and "roasting" technologies to get the maximum of fine-grained gold out of very difficult, refractory ores. More importantly, the scheme is made economic by bulk mining methods with large-scale earth-moving equipment.

Mr Bond bought up every available mining company on the Golden Mile. Unwilling sellers were encouraged to leave by extravagant prices impossible to refuse. He borrowed the necessary cash from the banks or by rights issues to the remaining outside stake holders in his Golden Mile companies.

By the spring of 1988 his family holding company, Dallhold, had control of five Gold Mile companies, but had built up associated debts of A$640m (about $480m) and had lost the goodwill of those outside shareholders.

The Super Pit is a colourful site. But not nearly as colourful as the corporate machinations which made it all possible

In spite of all his efforts, Mr Bond still did not own enough of the Golden Mile to maximise economies of scale – and without sufficient volume of production he would not be able to pay back his loans.

But with one more deal he achieved his objective. Abutting his holdings was a large open pit owned by the Homestake mining group of the US. Mr Bond and Homestake each could dig a Big Pit. But together they could develop a Super Pit, one of the world's biggest opencast mines and capable of being seen from the Moon.

In January 1989 Mr Bond and Homestake agreed terms to merge their Golden Mile interests into Kalgoorlie Consolidated Gold Mines which brings together six open pits, five underground mines, five mills and 1,500 people. These operations are being transformed into a Super Pit, one of the world's biggest man-made holes, at least 5km long, 2km wide and up to 500m deep.

This will lift gold production from about 400,000 ounces a year to 850,000 ounces by the mid-1990s, give a mine with a 20-year life and underpin the future of Kalgoorlie and its 30,000 inhabitants.

The scale of the operation will enable the Super Pit's miners to recover gold that otherwise would have been bypassed. Underground miners (and the Super Pit encompasses the biggest underground mine in Australia, Mt Charlotte) concentrate on the richest seams of gold and rarely are concerned with the thinner deposits that spread out from the main seams. These "mineralised haloes", as they are charmingly called, will be recovered by the opencast mining.

Unfortunately for Mr Bond, within a few months of the Homestake deal his dream of creating one of the biggest gold mines outside of South Africa crumbled. His various worldwide corporate interests were all balancing precariously on the edge of oblivion, brought there by huge debts,

In August last year he sold half his interest in the Super Pit and handed over management control to another Australian entrepreneur, Mr Robert Champion de Crespigny. In one bound Mr de Crespigny's Poseidon company was transformed and became Australia's second-largest gold producer after Western Mining.

Ironically, when Mr Bond started his accumulation of the Golden Mile interests in 1987, the first acquisition was that of Poseidon's interest in the Kalgoorlie Lake View mine. Mr de Crespigny says he bought that back three years later as part of the Super Pit deal for a fraction of what Mr Bond paid.

The deal seems to make the future of the Super Pit even more secure because the two partners, Poseidon and Homestake, are in a healthy financial state and ready to make a success of it.

After assuming management control, Poseidon set about reducing and restructuring the debt of Gold Mines of Kalgoorlie, the former Bond company which owns 50 per cent of the Super Pit. The debts are now almost exclusively denominated in gold and therefore attract much lower interest costs (interest is 3 per cent on a typical gold loan whereas Australian companies have been paying as much as 20 per cent for borrowed cash).

Meanwhile, work on the Super Pit is transforming Kalgoorlie. From on a hill above the Pit recently, I saw a moonscape stretching almost for as far as the eye could see. Through the dust raised by the 80-tonne payload trucks, it was a colourful site: red top soil, browny-red rubble broken up by the mechanical shovels and blue-coloured rock. Colourful, but not nearly as colourful as the corporate machinations which made it all possible.

Kenneth Gooding on the difficult turnaround at Bingham Canyon

Riches at last for Lazarus

THEY SAY Bingham Canyon, 25 miles from Salt Lake City in Utah, is the largest excavation project in history. It is also a prime example of North America's so-called Lazarus mining operations – those apparently killed off by the long period of extraordinarily low metal prices in the first half of the 1980s but which have had new life breathed back into them.

Bingham after 80 years of mining is two-and-a-half miles wide and half a mile deep but every working day trucks are still hauling out more than 89,000 tonnes of ore; ore rich in copper, gold, silver and molybdenum.

That output is to be boosted by about one third in 1992 as a result of a $227m project which has just been approved by Bingham's new owner, the RTZ Corporation of the UK.

The mine and associated facilities were the plum assets in the portfolio when RTZ bought British Petroleum's international minerals assets in 1989 for $3.6bn.

Yet Bingham seemed doomed in March 1985 when it was shut down. It reopened two years later as one of the world's leading copper mines only because dramatic changes had been made to cut its production costs.

For in the mining industry survival depends mainly on making sure operations are among the world's least expensive.

US mining companies were particularly vulnerable in the prolonged period of low metal prices in the first half of the 1980s.

Bingham was typical. Since 1936 it has been owned by Kennecott Corporation. The management was lulled into a false sense of security by the high prices and high demand for copper which lasted for 25 years until the end of the 1970s.

For most of that time copper supply was in the hands of relatively few companies which ensured production did not move too far ahead of demand to depress prices.

That all changed in the 1970s with the emergence of state-owned copper producers in the developing countries which now account for about 40 per cent of world output. Not only were their costs low, but they did not automatically cut output at times of weak demand.

In 1979-80 Kennecott started an urgent programme to cut costs. The axe fell heavily on the salaried workforce, which was cut by 45 per cent.

But it was a cost-cutting programme between 1980-84 which saved Bingham, says Mr Frank Joklik, president of Kennecott. Manpower was cut. "We produced as much copper in 1984 with 4,000 people as we did in 1980 with 7,000."

Suppliers contributed. "We leaned on the utilities and our suppliers to reduce costs and we introduced competitive bidding on contracts.

"We gained a 20 per cent reduction in costs in nominal dollars, not taking account of inflation which was running at 15 per cent a year at the time."

Kennecott had to tackle an hourly-paid workforce. That proved difficult: about 70 per cent of the mine workers were represented by the USW (US Steelworkers) and their benefits were in line with those of the steel industry; five other unions were represented at the mine and demarcation disputes were common.

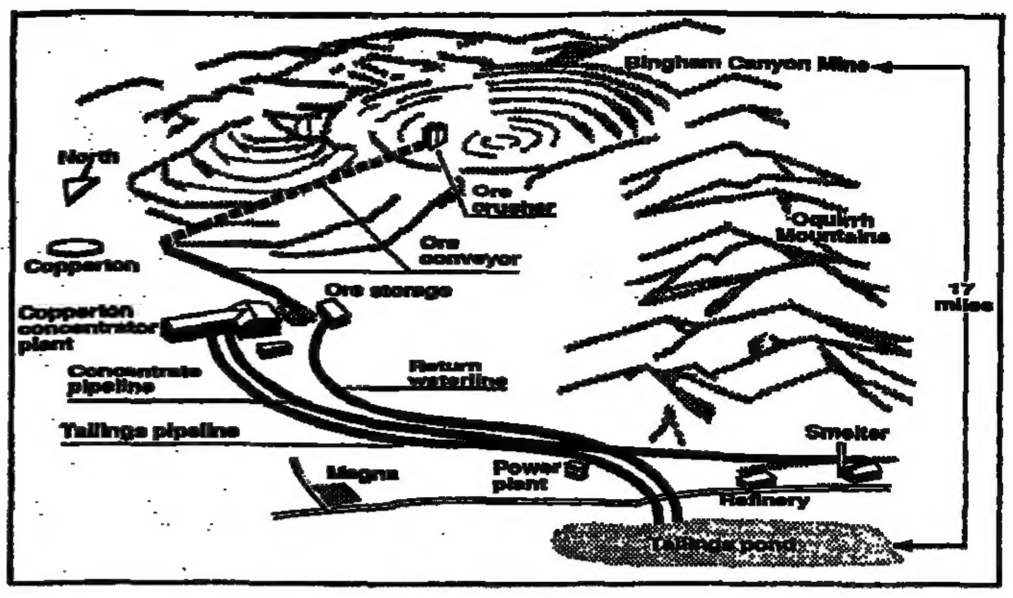
Kennecott's contract with the USW was not due to end until June 1986 but the company tried to re-open talks in 1984. These efforts proved fruitless and some Bingham mine operations were shut down in mid-1984.

The rest went on care-and-maintenance early in 1985, put out of business not only by the low copper price but by two of the worst winters ever recorded in the US, which added to Bingham's financial losses.

Talks with the USW continued through 1985, culminating in town meetings in Salt Lake City where as many as 2,000 employees were called together at one time to hear management presentations, to see videos about the company's financial position and to ask questions.

Kennecott braced itself for a strike but a secret ballot approved the management's final offer, which called for cuts draconian by any standard.

The remaining Kennecott workforce was to be cut by half to about 2,000, a measure which included a 35 per cent reduction in the hourly-paid workforce.



Those who remained accepted pay and benefit cuts. The average mine worker was earning $24 an hour, including $8.50 in fringe benefits, in 1985. When the mine reopened the figure was $14.50, including $4 in benefits.

Moreover, many restrictive working practices were cut from the contract. That contract was for four years compared with three-year deals prevalent in the US mining industry. It gave no pay rises in the four years, nor did it offer bonuses should the copper price recover.

The main concession by the company in return was an undertaking to restart mining at Bingham "when economically possible."

Modernising the out-dated equipment at the mine was considered as early as 1980 but was not approved until 1984. For most of that time Kennecott was owned by Standard Oil of Ohio (Sohio) in which British Petroleum had a majority stake.

It was not until the Kennecott management captured the attention of BP in London that the UK group decided to go ahead with the modernisation scheme – "at a time when putting money into copper was not a popular concept," Mr Joklik points out.

The $400m modernisation required the building of crushing and conveying facilities in the big pit; a new grinding-and-flotation plant nearby; and a pipeline transportation system between mill and smelter. A 5 mile conveyor belt transfers ore to the new concentrator – the world's biggest materials handling system, it is claimed.

Copper concentrates flow from the concentrator through a 17 mile pipeline to the smelter and there are two more pipelines of 13 miles each to take away waste. The concentrator took $200m of the total outlay and the recently-announced $227m investment programme will place most emphasis on further expansion of this facility.

The expansion, which should be completed late in 1992, will increase the concentrator's processing capacity from 77,000 tonnes to 112,000 tonnes of ore a day. This, plus 30,000 tonnes of ore a day which will continue to be processed at two older concentrators, will boost Bingham's copper production from 235,000 tonnes to 270,000 tonnes a year.

Mr Joklik says that the 25-year anticipated working life of Bingham will not be shortened because material previously planned to be mined as waste will be processed as ore.

The mine's copper production costs are held down by the value of its by-products, including about 350,000 troy ounces of gold, 2.6m ounces of silver and 10m lbs of molybdenum.

That helps put Bingham among the lowest-cost copper producers in the world, able to compete with the massive Escondida project in Chile, shortly to come on stream and to produce copper at about 40 cents a lb.

Consolidated Diamond Mines

Material benefits

NOWHERE in the world does the mining industry harness economies of scale to the degree seen at CDM's mine on a site where the Orange River meets the Atlantic on Namibia's diamond coast.

Vast amounts of material have to be shifted to recover the diamonds – 1,750 tonnes of sand to produce 25 carats of rough diamonds weighing about five grammes. And about half that weight will be lost when the gems are cut and polished.

CDM is shifting 46m tonnes of overburden or waste material and treating 17m tonnes of ore to produce less than 1m carats or 200kg a year of diamonds. The diamond-to-waste ratio is an astonishing 1 to 315m. They tell you at the mine that that is equivalent to picking just one second out of 10 years.

Depending on your point of view, CDM's mine either represents a monument to mankind's gullibility and an enormous waste of resources or it is a tribute to the mining industry's guts and ingenuity.

For CDM's Diamond Area No 1 is in one of the most unceasingly hostile areas in the world, flanked to the east by the Namib desert, while to the west the Atlantic's icy Benguela current pounds away at the shore.

Yet here a company town, Oranjemund, with 9,500 people, has been established so that the diamond orebody can be worked. The orebody forms an attenuated triangle nearly 100km long with a width of 3km at its base in the south. For convenience, the working areas are split into five parcels of 20km in length.

In the mining area are a fleet of 336 earth moving machines and 1,300 light and heavy commercial vehicles which never leave the secure part of the mine. Diesel fuel for this huge fleet is delivered twice a year to tanks on the shore from sea tankers which divers couple up to undersea pipelines.

All this in the name of security which is both stringent and expensive. Anybody entering or leaving the mine is liable to be randomly selected for a body-search or X-ray. Helicopter and vehicle patrols are conducted both day and night.

For the allure of this area is that it is sprinkled with diamonds and 98 per cent of them are of gem quality and of relatively uniform size and shape.

To get at the stones, overburden stripping is by either two bucket wheel excavators able to move 10m cubic yards of material between them each year, a dredge with an annual capacity of 1.2m cubic yards, or one of several scraper teams.

One of the outstanding sights at the mine is the larger of two bucket wheel excavators, an O&K S800 with the capacity to shift 1,500 cu m an hour. It operates in conjunction with a bridge conveyor system which moves the waste material about 100m from the advancing face.

Excavation of the bulk ore is by bulldozer, hydraulic excavator and front end loader. The mine uses relatively low-capacity haul trucks: Caterpillar 769s with 35-tonne payloads. These are able to reach speeds of 85km an hour fully loaded for the relatively long haul to one of four beneficiation plants on the mine.

The heaviest diamonds tend to work their way down through the beachs and to rest


Bucket wheel excavator removing overburden at CDM

in holes and crevices in the bed-rock beneath. So final cleaning is by labourers who use brushes and pans to sweep the rock. There are also locally-developed vacuum cleaning machines on crawler units which sweep about 30 sq m an hour.

Topping all this, in terms of making the Oranjemund mine unique, is the "Inshore Mining" project which pushes the area available to be mined 300m out to sea. A massive wall of sand has been built which allows mining to take place 19m below sea level. The wall stands 10m above mean sea level, is about 60m wide at the top and, when I visited the mine last summer, was 600m long.

There is a constant fight to keep the wall in shape. It took about 11m cu m of sand to build it and some 2.5m cu m have to be replaced each year to compensate for erosion.

The combination of a high-valued product, ease of concealment and the vast scale of the mining operation makes security and loss control more crucial than in any other type of mining.

CDM last year was particularly concerned about diamond stealing syndicates at work inside the mine. Perhaps the most obvious indication that something was not right came from the pan-and-brush brigade. Sweepers are offered hefty bonuses if they find any diamonds.

In 1988 more than 8,000 "pick up bonuses" were paid. By the end of June last year there had not been one.

In the same year CDM recovered stolen diamonds worth R9.2m (about $6m at that time) and its security staff believe this was only a very small percentage of the value of stones smuggled out of the mine.

In 1988 the mine's official production was 934,242 carats, down from just over 1m carats in 1987. The aim is to keep annual production between 800,000 and 1m carats for the next 10 years.

This will partly depend on the attitude of Namibia's newly-elected Swapo government. It is unlikely to leave the mine ownership as it is. CDM already contributes between 10 per cent and 16 per cent of Namibia's gross domestic product and accounted for 23 per cent of its export income in 1988, as well as paying R155.9m in taxes (13 per cent of all Namibian taxes paid in the period).

Swapo has indicated it would not nationalise CDM but most observers believe the government will want to take a substantial stake in the company. De Beers does not seem averse to having the government as a partner but suggests strongly that, as taxation already absorbs 70 per cent of CDM's profit, the company cannot bear any additional load.

Kenneth Gooding

Maurice Samuelson profiles Rheinbraun, West Germany's chief lignite producer, and (below left) its show-piece mine, Hambach

How Germany's big digger profits from moving the earth

HALF an hour's drive from Cologne, some of the world's biggest mobile land-based machines are digging 50m tonnes of coal a year from a hole 5km long, 3km wide and which will eventually be half a kilometre deep.

The hole, from which they also remove 310m cu m of earth each year, is the Hambach mine, which recently started supplying lignite to the Rhineland power stations and which will continue to do so for the next half a century.

Its machinery, lay-out and sheer scale represent the latest achievements of Rheinische Braunkohlenwerke, the chief West German producer of lignite, the semi-bituminous brown coal, and one of the leading international exponents of opencast mining.

Hambach mine is also a showpiece for the way opencast mining companies can repair or offset the damage they inflict on the human and natural environment.

Geology as much as engineering skill has given Germany its prominent place in the world opencast industry. Several parts of the country, in the east as well as the west, are blessed with huge reserves of lignite, which are close to the surface and covered by sand or other soft material which would present problems for underground mining.

The Rhineland-Westphalia area contains 55bn tonnes of reserves, comparable to the combined energy resources of Iran and Iraq. Some 35bn tonnes are economically recoverable, which, at the present rate of extraction, would last 300 years, the same life expectancy commonly claimed for the coal reserves of Great Britain.

Knowledge of the Rhineland's lignite deposits goes back nearly 2,000 years when Tacitus, the Roman historian, referred in his book "Germania" to outbreaks of spontaneous combustion as "smoking earth". But it was only in the last century that the German lignite, with a calorific value one third that of hard, black coal, began to be mined systematically.

In the 1870s, machines were introduced to turn it into briquettes, mainly for home heating. This process continues and supplies a lively export trade. But in 1912, the Rhinelanders also opened the first lignite burning power station, and lignite has since been used primarily for electricity generation. It is West Germany's cheapest fuel and supplies 20 per cent of power station fuel requirements.

Originally there were scores of mining companies at work. But many were forced to merge or close as the shallow outcrops were exhausted, and costs of deeper mines escalated, together with the size and depths of the pits and the machines required to excavate them.

In 1949, the four remaining lignite companies of the Rhineland were merged into Rheinbraun by the big electricity utility, Rheinische Westfälische Elektrizitätswerke (RWE), which had been involved in lignite burning since the 1920s and by 1959 owned three of Rheinbraun's constituent companies.

Rheinbraun's 15,000 employees currently produce 110m tonnes a year of lignite, of which 80 per cent goes to four RWE power stations, With an installed generating capacity of nearly 10,000MW, the plants produce nearly a fifth of West Germany's electricity and 40 per cent of demand in the Rhine/Westphalia area.

The remaining lignite is processed as briquettes and various grades of coke for industry. It is also starting to be used as a feed stock for advanced gas-fired turbines which RWE believes may one day play an important role in "clean" and more efficient methods of electricity generation.

Rheinbraun also has widespread overseas interests. It is a partner in uranium and hard-coal mines in North America and Australia and, through its consultancy arm, helps to design lignite mines in countries as far afield as Turkey, India and Indonesia.

At the time of the first world oil crisis, in 1974, the federal government asked Rheinbraun to increase its production by 50 per cent. The company refused, on the grounds that this would have meant creating another big mine, and that this would been more than the Rhineland could bear. Even so, output was stepped up by 20 per cent from existing mines.

In spite of Rheinbraun's large share of the domestic power station fuel market, production is concentrated in only five, admittedly large, opencast mines – Fortuna, Bergheim, Garzweiler, Hambach and Inden. Except for Hambach, which will eventually be 500m deep, the others range in depth between 200m and 250m.

Because of their size, the German mines have a profound effect on the area in which they are situated. Surface and underground water has to be carefully controlled, collected and channeled both during the development of the mines and the simultaneous land restoration.

They embrace not only valuable farm land, but rural communities which have to be uprooted and re-settled. Since the Second World War, 30,000 Rhinelanders have evacuated their homes and villages to make way for the lignite mines. Even churches have been knocked down. Only the dead have been left undisturbed in the churchyards.

In Germany, talk of a new mine still arouses concern. But so far, Rheinbraun claims it has never failed to win a planning application. "In the traditional mining areas, we are tolerated and even respected", it says.

This is testimony to the general reputation of the mining companies and the high prestige of the industry and its record on land restoration.

Since the Rhineland lignite is covered by an overburden of rich brown loess soil, it is ideal for fertilising rich new agricultural areas where mining has been completed. Sugar beet, wheat and barley grow as successfully on these new fields as in untouched farmland, says Rheinbraun. Imaginative landscaping of non-arable land is also used to provide new amenities such as lakes and recreation areas stocked with a rich ecology of trees, plants, animals and insects.

The vast dump which screens the western rim of the Hambach mine is being planted with 80 species of trees. Imaginatively laid out for walkers and picnickers, it has been called the Sophienhöhe (after a mine official's wife) and is a haunt for fallow deer, foxes, rabbits and hares. From its slopes one looks westward across sleepy farms and villages towards the borders of Belgium and Holland, scarcely aware of the huge mining operations in the artificial valley less than a kilometer away to the east.

The area's rich archaeological past, including its Roman remains, also has to be unearthed and protected. The first modern village demolished to make way for the Hambach mine lay astride a Roman road from Cologne to Belgium.

Stretches of that road, along which Tacitus himself might have travelled, were preserved by being glued on to fabric and later relaid. Among remains found by archaeologists were those of a Roman villa complete with family altar and a valuable bronze statuette of the god Apollo.

Rheinbraun now shows it proudly to visitors, a symbol perhaps that "where there is muck there is bronze".

Hambach the heavyweight

RHEINBRAUN'S Hambach mine is a show-piece for the specifically German method of opencast operation. An advertisement for the "big is beautiful" school of engineering, the large name plates on its equipment provide a "who's who" of Germany's heavyweight machinery industry.

The German opencast method consists of continuous mining with the minimum number of large-scale inter-connected machines.

The area of the Hambach mine consisted originally of forest and farmland. In order to make way for it, the 300 inhabitants of the village of Steinstrass voted to accept resettlement in new homes provided by Rheinbraun. Planning for Hambach began in the 1960s. It was intended to replace the depleting reserves of another Rheinbraun mine.

The 1970s oil crisis gave it new urgency. In 1974 it received government approval; removal of overburden to expose the rich lignite coal began in 1978 and the coal started flowing at the beginning of 1984. By 1987, 1.3bn tonnes of overburden had been shifted. It now produces 32m tonnes of lignite a year, 24 hours a day, six days a week.

With its six to one ratio of overburden to lignite, 300m tonnes a year of sand and gravel will have to be moved when lignite production reaches its 50m tonnes a year target.

The final target is to shift 2.7bn cu m of overburden, of which 1.7bn will be used to create new farmland on the site of two older mines. Another 1bn cu m is going into the Sophienhöhe dump on the western edge of the Hambach mine, which is being imaginatively developed into a wooded recreation area. It currently employs 2,000 people but this will increase to 3,000 at peak production.

The mine's total investment is put at some DM5bn, divided evenly between engineering costs and the purchase of the equipment, and due to be repaid in about 20 years.

This will depend largely on the skill with which the mine's equipment is operated and maintained. According to Rheinbraun, repair and preventive maintenance schedules account for up to 40 per cent of total costs.

The mine's sinews consist of huge bucket-wheel excavators, which incessantly scoop up the overburden and the coal; the belt conveyors on which the material is transferred; and the stackers which unload it in stockyards or as landfill.

The bucket wheels are designed to eat night and day into the earth walls of the mines and its seams of lignite. Five are currently working on five of the benches, or ledges, which line the mine's inner slopes. A sixth is under construction on site. And two more are due to be installed by the mid 1990s, as the mine reaches its maximum depth of half a kilometre and reaches maximum output of 50m tonnes of lignite a year and 310m cu m of overburden.

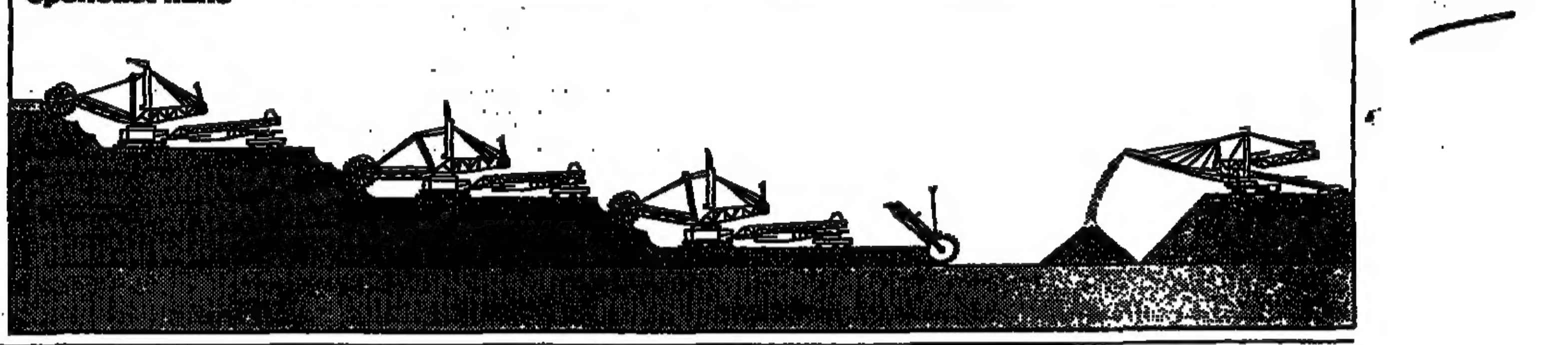
These steel leviathans, the biggest ever built in Germany, can gobble up 240,000 cu m of material a day. Manned by a five member crew, they are half the height of Cologne Cathedral and cost DM150m a piece. Their insatiable appetite will be the main factor in moving the whole mine eastward at the rate of 100m a year.

The mine contains about 70km of high speed conveyor belts one meter wide which cost about DM10m per kilometre to install. They are kept spinning by large Krupp drive stations posted at regular intervals along their length. The belts converge at a central stocking point, from where overburden is redirected by new belts travelling to infill areas and coal feeds on to Rheinbraun's own fleet of trains serving the power stations of RWE and its own briquetting works.

Rheinbraun sees Hambach as the latest stage in opencast mining technology. Until recently, the workhorses of the industry were draglines and mechanised shovels. The shovels in particular were expensive to operate – each shovel needed a driver and required frequent expensive changes of tyres.

Although dearer to install, the belt conveyors were proving cheaper in the long run and large numbers have been installed in Germany in the past 10 years.

A typical operational set-up with bucket wheel excavators and spreaders in a multiple-seam opencast mine



AUSTRALIA

Resource-rich world leader

AUSTRALIA is the world's largest coal exporter, with shipments nudging 100m tonnes in 1989. The bulk of this coal comes from large scale opencast mines in the states of New South Wales and Queensland. Significant opencast coal mining also occurs in Victoria, but production is used solely for domestic electricity generation.

As with coal mining throughout the world, the Australian industry began by using underground extraction methods. Opencast coal mining did not begin in Australia until 1932 in New South Wales. The method was introduced in Queensland in 1936 and grew quickly because of increased coal demand to meet the Second World War effort.

Australia's growth since the late 1960s from relative coal export obscurity to the world's leading supplier has been mainly based on large-scale, low cost opencast mining methods. The bulk of the surge in growth came from Queensland where 92 per cent of production now comes from opencast mines.

In New South Wales, where the industry is older, with more of an underground heritage, about 40 per cent of output now comes from opencast mines. But this reflects rapid growth from a figure of just 7 per cent in 1970.

Queensland hosts the eight biggest opencast coal mines in Australia, and 14 of the largest 20. The largest and best known group in the state is operated by BHP-Utah, a subsidiary of Australia's biggest company, the Broken Hill Proprietary Company. BHP-Utah's mines are located in the Bowen Basin region, one of the most accessible and highest quality coal areas in the world.

The region covers an area of 75,000 sq km of Permain age marine and freshwater sediments and is roughly triangular in shape, containing reserves of about 26,000m tonnes, much of it outcropping within 60 metres of the surface.

Annual coal production from the Bowen Basin has risen from a mere 750,000 tonnes in 1960 to 56m tonnes in 1989, with about 35m tonnes produced by BHP-Utah.

Typical of the scale of the BHP-Utah operations is its third biggest mine, Saraji, which exploits reserves in the Dysart seam, between 4m and 8m in thickness. The seam is covered in overburden ranging in depth from 13m to more than 200m.

The Saraji workforce numbers 680 and the mine extends over 24km, broken into eight adjacent mining pits. Overburden removal is by explosives placed in drill holes, using three rotary drills and a bulk explosives mixing truck. After blasting, electric draglines of 48 cu m bucket capacity remove overburden into the previously mined area, where ultimately, it is reclaimed and revegetated.

In areas where the overburden depth is too great for the dragline to handle, a truck and shovel operation using one large electric shovel and five 182-tonne rear dump haul trucks is used to pre-strip to levels where the dragline can operate.

Once uncovered, the coal is drilled and blasted, where necessary. Electric shovels and rubber-tyred loaders load the coal into 136-tonne capacity haul trucks. In some areas of the mine, the coal seam is split by shale bands of half to one and a half metre thickness. This coal is recovered with a mobile scraper and dozer operation.

Because of a sloping seam, Utah's second biggest mine, Goonyella, has the biggest overburden removal task. This has forced the company to employ its first bucket-wheel excavation system with an associated conveyor belt system for pre-stripping.

Use of the system illustrates a growing problem for BHP-Utah as most of its opencast mines are forced to employ deeper pits, necessitating progressively greater overburden removal. Pre-stripping methods naturally add to costs, and ultimately the BHP-Utah mines will probably have to move underground.

Statistics from the Queensland Coal Board clearly show the greater productivity of the state's opencast coal mines compared with their underground counterparts. The average output of saleable coal per man year in opencast mines rose from 7,669 tonnes to 8,179 tonnes in 1988-89. That compared with a rise from 2,529 tonnes to 2,654 tonnes in underground operations. Similarly in New South Wales, Joint Coal Board statistics show average raw coal output per manshift in the state's opencast mines at 35.5 tonnes in 1988-89 compared with 15.4 tonnes for underground mines.

The state of Victoria's coal reserves are located in a region known as the Latrobe Valley, about 200km north-east of Melbourne. The total economic resource has been estimated at 98,000m tonnes of lignite (brown coal), and it is mined at a rate of about 45m tonnes a year to generate electricity for the state.

The coal seams extend almost continuously for 70km and are 25km wide in some areas. Seams range in depth from 30m to 200m, with overburden depth averaging 15m in the most favourable areas. Coal for electricity generation is won from three opencast mines at Yallourn, which began in 1924, Morwell, which began in 1955, and Loy Yang, where development began in the mid 1980s.

The Loy Yang project is one of the largest ever in Australia, and mining is carried out by dredges, capable of winning up to 60,000 tonnes of coal a day.

Bruce Jacques

UK CONTRACTORS

Environmental factor exerts its influence

The vast bulk of opencast coal mining in Britain is carried out for British Coal whose opencast output was around 17.5m tonnes in 1989, roughly 20 per cent of total UK coal production.

British Coal is responsible for identifying likely sites and applying for and – it hopes – winning planning permission. Once that is done, it puts the job of extracting the coal out to tender.

Perhaps the dominant name in the sector is A.F. Budge, the privately-owned civil engineering and mining company. In 1988, Budge alone was responsible for 20 per cent of British

'Environmental pressures continue to mount and these are translated into more stringent planning conditions'

Coal's opencast output, the highest figure for any one company.

Mr Richard Budge, managing director of Budge's mining operation, estimates that his company currently accounts for 22 per cent of total outcast output – though the latest figures from British Coal for the period from January to November 1989 say Budge was responsible for 17 per cent.

Either way the company is a leading force in the sector. It is currently extracting coal from eight sites, the biggest at West Chevington near Ashington in Northumberland.

According to British Coal's figures, Budge has been joined at the top of the 1989 output league by Crouch Mining.

In 1988, Crouch was responsible for 11 per cent of British Coal's output. British Coal's figures for the 11 months to last November show that Crouch's market share has risen to 17 per cent.

Crouch Mining currently has seven opencast sites in Scotland, the north of England and the Midlands. It employs about 700. It is working on two of the three biggest sites in Britain, the 15m tonne Dalquhandy site near Coalburn in Lanarkshire, and the 12.2m tonne Stobswood site near Morpeth in Northumberland.

It started work on the £150m Stobswood contract earlier this year and is due to complete work on the 460ha site in 2002.

Crouch Mining changed its name from Derek Crouch (Contractors) after the 1987 takeover by Ryan International. Extra resources have allowed it to bid for bigger contracts and workload has increased considerably in the past few years.

Planning problems and the growth of the Green movement are causing it some concern, but a Crouch spokesman said the company was looking forward to the prospect of British Coal being privatised and to when the government acts on its recent proposals to raise the threshold for private opencast sites.

"We have no private sites at the moment because we have not felt it to be worthwhile. There may be prospects in the future. But we are still concerned about whether we will be able to push forward because of the planning situation," said a company spokesman.

Third and fourth in British Coal's league table are Coal Contractors, owned by NSM, and C.P. Holdings, both with 11 per cent of British Coal's opencast output.

C.P. Holdings is currently operating five British Coal contracts through three subsidiaries, Shand Mining, Murphy Brothers and Currall, Lewis and Martin. The largest is at Coalfield North in Leicestershire which covers 182ha and contains 7.5m tonnes. Shand Mining started work in 1982 and is due to finish in 1993.

C.P. Holdings and its subsidiaries employ around 550 in total in opencast mining. It is currently bidding for two more contracts. Mr Bernard Schreier, its chairman, says the company will bid for anything that is going.

He is more cautious about the sector's prospects than some of his competitors. "I am only optimistic if the Department of Environment is more sympathetic to us. And I am only optimistic if the coal market as a whole does not go for cheap imports."

NSM's Coal Contractors is different from many of its rivals in the emphasis it puts on private opencast mining as well as working for British Coal. It is working nine sites for British Coal and is operating a further eight in the private sector. Its total coal output last year in both sectors was around 2.5m tonnes.

However, it expects its private output to rise significantly in the near future as work has just started on several sites which have yet to reach top gear.

Two of the biggest construction names in the UK, Taylor Woodrow and Wimpey, occupy fifth and sixth places in British Coal's table with 9 per cent and 7 per cent of output respectively.

Taylor Woodrow's fame in opencast in recent years has been as the contractor at Butterwell in Northumberland, for many years the largest opencast site in the country. Having produced 12.94m tonnes from a site covering 826ha, coal production is due to finally stop this year. Work started in 1977.

The company is also extracting coal from three other sites – all a lot smaller than Butterwell – and will be looking to win four or five more contracts this year, according to Mr Mike Batchelor, Taylor Woodrow's mining director.

Competition in the sector is

'I am only optimistic if the Department of Environment is more sympathetic to us, and if the market does not go for cheap imports'

intense, he says, and margins are very tight. "In fact I do not think there are any margins at all on some jobs," he comments. But Mr Batchelor is confident that the planning difficulties facing British Coal are being ironed out and does not feel there will be a steep dip in workload.

The planning authorities now seem to be taking a much more realistic view of opencast mining, although they are imposing very strict conditions which are becoming increasingly difficult to meet.

Wimpey Mining is currently working on 10 sites, including three which it is restoring after extracting the coal and two other private sites. It is currently bidding for two more contracts from British Coal.

It employs about 600 in its opencast operations and extracted 1.4m tonnes of opencast coal last year. Its biggest contract for British Coal is the 3.3m tonne Ffos Las site in Dyfed which was hit by flooding in February. Other sites include the 1m tonne Gilfach Iago near Ammanford in Wales and the 2m tonne Potatopot near Workington in Cumbria.

Mr Del Rees, Wimpey Mining's engineering director, feels that the growth of the Green movement is having an effect. "Environmental pressures continue to mount and these are translated into more stringent planning conditions," he said.

But he added: "The industry is confident that these can be met."

Graham Anderson

Maurice Samuelson on British Coal's image building process

Ugly blots on the landscape

WHEN Mr Ray Proctor took over as head of British Coal's Opencast Executive three years ago, a local politician told him: "In this county, we have only two political problems – you and the gypsies."

Since then, Mr Proctor and his colleagues have been conducting an uphill fight to improve the image of one of Britain's most controversial industries. They have done so in the face of rising public sensitivity over the environment and the belief that opencast mining is hastening the rapid downfall of Britain's large underground coal industry.

Organisations such as the Council for the Protection of Rural England, Greenpeace and Friends of the Earth fear that the countryside may be callously sacrificed in the relentless drive to make British Coal a profitable concern.

They have been backed by miners and their local authority sympathisers who identify opencast coal mining as the enemy rather than the ally of underground mining.

The difficulties stem largely from the fact that, in sharp contrast with West Germany, which boasts a small number of very large opencast sites, opencast mining in Britain takes place in a multiplicity of small sites, often close to built up areas. They all have to be submitted to scrupulous vetting procedures before gaining approval.

Since the average coaling life of an opencast site in Britain is only five years, this means that 20 per cent of capacity has to be replaced every year merely to maintain a steady level of output.

In England and Wales last year, 42 opencast sites were in production. But in the same year 10 sites ceased coaling and British Coal contracted with private concerns to extract coal from 11 more.

Permission was won to mine on five sites but seven other applications were refused, of which British Coal finally won four on appeal to the government.

Several consultants and academic geologists have suggested that British Coal should grasp the nettle by concentrating its opencast activities in a small number of very large mines.

However, apart from the fact that this would provoke political problems, there are only a limited number of possibilities for such projects and there is no sign of British Coal following their advice.

In the meanwhile, however, events appear to be moving remorselessly in favour of a bigger opencast sector. Last year, opencast production reached a record 16.8m tonnes. In the same year, deep-mined output, at 85m tonnes, was the second lowest for more than 40 years.

In Scotland, the contrast is even more dramatic. Some 3.5m tonnes was produced from 11 sites while the once proud deep-mined sector, now reduced to a single colliery, produced only 1.9m tonnes.

The opencast coal helps to sweeten the rest of British Coal's business, both financially and technically. With a far lower production cost than that of the deep mines, the Opencast Executive contributed some £250m of operating profit to the corporation's bottom line.

Because of its lower chlorine content, much of the opencast coal is blended with deep mined coal to make it more suitable for power station boilers. Opencast mines also produce half the country's anthracite, reducing the need for even greater imports of this specialised coal most of which is already bought abroad.

Opencast coal mining also provides jobs for 15,000 people. They are employed by some 25 contractors which operate the opencast sites on British Coal's behalf. They include some of Britain's leading civil engineering concerns, such as Taylor Woodrow, Wimpey, Amey Roadstone and Sir Alfred McAlpine.

Other well known operators are Derek Crouch (now part of Ryan International), Budge, H.J. Banks, C.P. Holdings,

Britain's opencast coalmining regions

Source: British Coal

Lomount, Bayford, Raymin, Miller, Kier Mining, Northern Strip Mining, Fairclough Parkinson and Coal Contractors.

Meanwhile, the Opencast Executive is trying to win the environmentalist argument. It faces a widespread belief that opencast workings are blots on the landscape which cause far-reaching damage to agriculture and wild-life, as well as dust, noise and traffic hazards to local communities.

It points out that much of the coal it wishes to mine is not on pastoral greenfield sites but near old underground workings which have never been satisfactorily restored. British Coal says that by removing the residual coal from these old shallow workings it will actually be improving their appearance and enhancing their environmental quality.

Last year, a fifth of the sites which received planning consent were said by British Coal to be "encumbered with dereliction – spoil heaps, abandoned mineral workings, delapidated buildings."

As part of the opencast operations on them, the dereliction would be cleared up at no cost to the public purse and the land restored to beneficial use. Over the past 20 years, some 16,000 acres of derelict land has been reclaimed to a standard which British Coal claims as "the highest in the world."

But many local authorities prefer, it seems, to let sleeping coal tips lie rather than invite the new industrial activity involved in their ultimate elimination.

It was only after a prolonged planning battle that British Coal recently won permission to reclaim some 2.25m tonnes of coal from the Kirk site, an ugly black spoil heap left by the former Denby Hall colliery, near the famous Denby pottery.

Nothing grows on its soggy dangerous hillsides, whose only sign of wildlife are noisy motor-cycle dirt riders. But that did not deter a vociferous rearguard campaign against the mining-cum-restoration proposals.

For the time being, too, British Coal has not yet secured permission to mine and restore the Cutacre coal tip in Lancashire, said to be the biggest eyesore of its kind in Europe.

After nearly two years of discussion with planning officials and environmentalists, the plan to extract the coal under the tip is still held back partly because of the anticipated effect on local housing and partly on the tip's own "inhabitants".

These are the colonies of great crested newts, shy amphibians which breed in its ponds, and for whom alternative accommodation is being exhaustively discussed.

Meanwhile, British Coal is engaged in a constant publicity campaign to demonstrate its environmental commitment. In the past five years, for example, the Opencast Executive has established 14 nature reserves, seven lakes for angling and water sports and seven golf courses, with more under way or planned.

The creation of the Rother Valley country park, in Yorkshire, with three lakes and 350,000 trees, is attracting about 700,000 visitors a year.


THEY CALL IT THE LAND OF OPPORTUNITY.
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